Department of Health and Human Services
Part 1. Overview Information

Participating Organization(s)

Centers for Disease Control and Prevention (CDC)

The policies, guidelines, terms, and conditions of the HHS Centers for Disease Control and Prevention (CDC) stated in this notice of funding opportunity (NOFO) might differ from those used by the HHS National Institutes of Health (NIH). If written guidance for completing this application is not available on the CDC website, then CDC will direct applicants elsewhere for that information.

Components of Participating Organizations

National Institute for Occupational Safety and Health (NIOSH)

Funding Opportunity Title

National Center for Construction Safety and Health Research and Translation (U54)

Activity Code

U54 Specialized Center- Cooperative Agreements

Announcement Type

Reissue of RFA-OH-19-001

Related Notices

None

Notice of Funding Opportunity (NOFO) Number

RFA-OH-24-001

Companion Notice of Funding Opportunity

None

Number of Applications

Only one application per institution is allowed, as defined in Section III. 3. Additional Information on Eligibility.

Assistance Listing Number(s)

93.262

Funding Opportunity Purpose

NIOSH is seeking applications from qualified organizations for a National Center for Construction Safety and Health Research and Translation (also known as the NIOSH National Construction Center). Applicants are expected to propose multi-disciplinary approaches for impactful applied and intervention research and hazard identification and controls, to develop partnerships for implementing prevention and intervention activities, and to serve as leaders in research translation and research-to-practice for the protection of construction workers in the United States. The NIOSH National Construction Center will accomplish these goals by 1) integrating and advancing research, 2) translating and disseminating best practices, 3) disseminating information, 4) informing policy, and 5) building capacity. Applicants must describe the occupational health and safety burden(s) addressed in their proposals. In addition, they must link the need for the proposed research and related activities to the planned outputs and outcomes that will help address or alleviate the construction sector burdens described. Applicants should also describe the anticipated impacts and potential outcomes of the proposed research and related activities that will occur during the 5-year project period and beyond.

Key Dates

Posted Date

August 28, 2023

Open Date (Earliest Submission Date)

November 1, 2023

Letter of Intent Due Date(s)

The first Letter of Intent due date is November 1, 2023. Thereafter, 30 days prior to the application due date

Application Due Date(s)

December 1, 2023; October 31, 2024; October 31, 2025; October 30, 2026

On-time submission requires that electronic applications be error-free and made available to CDC for processing from the NIH eRA system on or before the deadline date. Applications must be submitted **no later than 11:59 PM U.S. Eastern Time** on the listed application due date.

Applicants will use a system or platform to submit their applications through Grants.gov and eRA Commons to CDC. ASSIST and an institutional system to system (S2S) solution are options. ASSIST is a commonly used platform because it provides a validation of all requirements prior to submission and prevents errors.

For more information on accessing or using ASSIST, you can refer to the ASSIST Online Help Site at: https://era.nih.gov/erahelp/assist . Additional support is available from the NIH eRA Service Desk via https://www.era.nih.gov/need-help.

- E-mail: commons@od.nih.gov
- Phone: 301-402-7469 or (toll-free) 1-866-504-9552
- Hours: Monday - Friday, 7 a.m. to 8 p.m. Eastern Time, excluding Federal holidays.

Applicants are encouraged to apply early to allow adequate time to make any corrections to errors found in the application during the submission process by the due date.

Note: HHS/CDC grant submission procedures do not provide a period beyond the application due date time to correct any error or warning notices of noncompliance with application instructions that are identified by Grants.gov or eRA systems (i.e., error correction window).

AIDS Application Due Date(s)

Not Applicable

Scientific Merit Review

May 2024; March 2025; March 2026; March 2027

Advisory Council Review

June 2024; April 2025; April 2026; April 2027

Earliest Start Date

September 1, 2024

Expiration Date

December 1, 2026

Due Dates for E.O. 12372

Not Applicable

Required Application Instructions

It is critical that applicants follow the Multi-Project (M) Instructions in the SF424 (R&R) Application Guide, except where instructed to do otherwise in this NOFO. Conformance to all requirements (both in the Application Guide and the NOFO) is required and strictly enforced. Applicants must read and follow all application instructions in the Application Guide as well as any program-specific instructions noted in Section IV. When the program-specific instructions deviate from those in the Application Guide, follow the program-specific instructions. **Applications that do not comply with these instructions may be delayed or not accepted for review.**

Telecommunications for the Hearing-Impaired: TTY 1-888-232-6348.

There are several options available to submit your application through Grants.gov to NIH and Department of Health and Human Services partners. You **must** use one of these submission options to access the application forms for this opportunity.

1. Use the NIH ASSIST system to prepare, submit and track your application online.
   Apply Online Using ASSIST
2. Use an institutional system-to-system (S2S) solution to prepare and submit your application to Grants.gov and eRA Commons to track your application. Check with your institutional officials regarding availability.

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Part 2. Full Text of Announcement

Section I. Notice of Funding Opportunity Description

Statutory Authority

This program is described in the Assistance Listings and is not subject to the intergovernmental review requirements of Executive Order 12372 or Health Systems Agency Review. Awards are made under the authorization of the Occupational Safety and Health Act of 1970, Section 20(a) and 21(a) (29 USC 669(a) and 29 USC 670); Federal Mine Safety and Health Act, Section 501(a), 30 USC 1 (Note), and 30 USC 951(a); and Section 301 of the Public Health Service Act as amended (42 USC 241) and under Federal Regulations 42 CFR Part 52. All awards are subject to 45 CFR Part 75, the terms and conditions, cost principles, and other considerations described in the HHS Grants Policy Statement.

Background and Purpose

Every day, millions of U.S. workers go to work with the expectation of returning home healthy and safe. However, the workplace environment can significantly impact a worker's physical and psychological health. Depending on the nature of the job, workers may be at risk for various types of injuries, illnesses, or even death. Work-related illnesses are often underestimated because it can be challenging to recognize or associate them with past occupational exposures.

According to the U.S. Bureau of Labor Statistics (BLS), in 2021, private industry employers reported approximately 2.6 million nonfatal workplace injuries and illnesses, based on the Survey of Occupational Injuries and Illnesses (SOII) data. The BLS Census of Fatal Occupational Injuries (CFOI) reports 5,109 fatal work injuries in 2021 in the United States. Work-related injuries, illnesses, and deaths are costly to American society. In 2020, employers spent $93 billion on workers' compensation, as reported by the National Academy of Social Insurance.

BLS estimates indicate that in 2021, there were 2.5 nonfatal workplace injuries per 100 full-time construction workers. Additionally, construction and extraction occupations had 951 fatal injuries in 2021, accounting for 19% of the nation's total work-related deaths. Most of these deaths are preventable. Falls and struck-by incidents are the leading causes of fatalities in construction, with falls accounting for about 39% of work-related deaths in construction followed by struck-by incidents. Specifically, in 2021, 370 out of 951 total construction fatalities were due to falls. Within the construction industry groups at higher risk for different health outcomes have been identified – where possible, it is important to increase efforts to focus prevention efforts where impact may be greatest. For example, among construction workers roofers had the highest rate of fatal injuries, 59 per 100,000 FTE, in 2020. Beyond physical health risks, current issues related to mental health (including suicide) and substance use disorder (including opioid use disorder) are having a major impact among construction workers and workplaces. The construction industry has one of the highest suicide rates compared to other industries, with suicide rates rising dramatically in recent years. According to the Centers for Disease Control and Prevention (CDC), there were more than 80,000 opioid-related overdose deaths in 2021 -

a 15% increase from the previous year. Construction workers are at greater risk for overdose and at greater risk of dying from opioid-related overdoses than the average worker.

NIOSH is an agency operating within the CDC. The mission of NIOSH is to generate new knowledge in the field of occupational safety and health and transfer that knowledge into practice to prevent worker injury, illness, and death. To accomplish this mission, NIOSH conducts and funds scientific research, develops methods to prevent occupational hazards, develops guidance and authoritative recommendations, translates scientific knowledge into products and services, disseminates information, identifies factors underlying work-related disease and injury, and responds to requests for workplace health hazard evaluations.

NIOSH organizes its research program under the framework of the National Occupational Research Agenda (NORA). NORA is a partnership program to stimulate innovative research and improved workplace practices. Unveiled in 1996, NORA began its third decade (2017–2026) with an enhanced structure. It now consists of ten industry sectors based on major areas of the U.S. economy, and seven health and safety cross-sectors organized according to the major health and safety issues affecting the U.S. working population.

This funding opportunity provides support for a National Center for Construction Safety and Health Research and Translation (National Construction Center) to address the significant and varied burden of work-related injuries and illnesses in the U.S. construction industry. The NIOSH National Construction Center serves as a national leader in construction research, implementation, and dissemination of scientific discoveries to benefit construction workers by working to prevent or reduce work-related injuries and illnesses. The NIOSH National Construction Center recipient will address both regional and national construction worker safety and health issues and prioritize the creation, dissemination, and widespread use of evidence-based solutions to address the most critical safety and health problems in the construction industry. Furthermore, the NIOSH National Construction Center will establish a publicly accessible online repository for research data, indicators, and research-to-practice materials and products. The overarching goal of the National Construction Center is to reduce adverse construction worker health and safety outcomes by studying, developing, and implementing evidence-based practices and solutions.

Healthy People 2030 and other National Strategic Priorities

The United States Public Health Service (PHS) is committed to achieving a society in which all people live long, healthy lives. The vision, mission, and goals are found in Healthy People 2030, a PHS-led national activity to achieve better health in the United States by the year 2030. This funding announcement is linked to the goals of Healthy

People 2030, which are intended to prevent work-related diseases, injuries, and deaths while improving worker health, safety, and well-being.

According to Healthy People 2030, more than 160 million people participate in the U.S. labor force, and their work has an intrinsic connection to their safety and health. Decades of public health surveillance and research have demonstrated that work-related injuries adversely affect employers, workers, and communities. Workplace settings vary widely in size, sector, design, location, processes, culture, and resources. In addition, workers themselves have different ages, genders, education levels, cultural backgrounds, health practices, vulnerabilities, and levels of access to preventive health care. This translates into great diversity and disparity in the safety and health risks for each industry sector and the need for tailored interventions.

The Healthy People 2030 occupational safety and health objectives aim to prevent illness, injury, and disease due to working conditions. All objectives, core and developmental, align with NIOSH's strategic plan and are addressed through NORA, a program established by NIOSH that works with partners from academia, industry, labor, and government to stimulate research and improve workplace practices.

Public Health Impact

NIOSH programs support research and related activities that address worker safety, injury prevention, and health concerns across a wide spectrum of industries and occupations. NIOSH also supports approaches that include basic research through implementation research, which takes research knowledge and promotes implementation and use through development and application of engineering controls, new technologies, and communication products. Through this announcement, NIOSH is seeking meritorious applications for a National Construction Center that will assist NIOSH and NIOSH construction program leadership in reducing and preventing occupational injury, illness, death, and disability among U.S. construction workers.

Relevant Work

For over three decades, NIOSH has funded extramural research covering a diverse range of topics and approaches related to construction safety and health. Through a series of cooperative agreements, the NIOSH-sponsored National Construction Center has played a key role in conducting and synthesizing research, implementation, policy, training, and education. NIOSH has successfully supported the advancement of new knowledge in the field of occupational safety and health and its transfer into practice, with the ultimate goal of reducing the burden of occupational injuries, illnesses, and fatalities. More information can be found at the NIOSH Office of Extramural Programs and the NIOSH Construction Research Program.

Approach

Applications for this funding opportunity should have a national scope for research, implementation, dissemination, and related activities described in this announcement. The proposed projects should aim to achieve the following objectives: 1) reducing and preventing construction worker exposures to safety and health hazards, 2) improving the safety culture and safety climate within the construction industry, 3) applying prevention through design, the hierarchy of controls, and emerging technologies where appropriate to address industry hazards, and 4) widely disseminating best practices and other information for use by workers, employers, contractors, and site owners. The National Construction Center is expected to work closely with NIOSH construction program leadership, academic and research partners, and other organizations to advance research integration and inform best practices and effective worksite solutions in the U.S. construction industry. Applicants should clearly describe how the intended outcomes of the proposed work will contribute to the specified goals in NIOSH's Strategic Plan and, in the NIOSH Priority Goals for Extramural Research.

National Construction Center Structure

The NIOSH National Construction Center provides interdisciplinary research and outreach efforts to address occupational health and safety hazards in construction. Applicants should consider the required and optional components essential to the National Construction Center function, detailed below, in providing an overall description of the proposed Center, addressing 1) the burden of occupational injuries and illnesses for the construction sector, 2) the national need for the Center's proposed programs and projects, and 3) the Center's impact, or potential for impact, on construction worker health and safety.

To effectively address the purpose and scope of this NOFO, the following **required components** will enable the Center to cohesively address established goals and objectives for providing impact:

- Planning, Administration, and Evaluation Core
- Construction Industry Data and Statistical Core
- Communication, Outreach, and Education Core
- Research-to-Practice Core
- Applied Research Projects (collectively, the Applied Research Core)

Planning, Administration, and Evaluation Core (**up to 20% of total costs/year**). The purpose of this core is to 1) provide oversight, leadership, and management for the Center, including establishment and maintenance of advisory committees; 2) engage in long-range planning, coordination, and implementation of work that crosses multiple cores, programs or projects; and 3) develop and assist in implementing evaluation efforts at the Center, core, program and project levels.

Construction Industry Data and Statistical Core (**up to 10% of total costs/year**). This core acquires, analyzes, interprets and disseminates data, indicators, and important

changes/trends within and impacting the construction sector. The types of data can include construction related injury, illness, disability, deaths, industry characteristics, advances in methods, equipment, or technologies, as well as indicators such as employment and demographic economic variables.

Communication, Outreach, and Education Core (**up to 10% of total costs**). The purpose of this core is to ensure that evidence-based approaches, technologies, guidelines, policies, best practices, or similar activities that are known to be effective are promoted and disseminated to benefit workers and their associated work environments. This core develops partnerships with a diverse group of stakeholders to help ensure that research outputs, outcomes, and impacts can be disseminated widely. A variety of pathways should be used, such as live meetings, webinars, websites, and social media.

Research-to-Practice Core (**up to 30% of total costs/year**). This core ensures a systematic approach focused on the use, adoption, and adaptation of interventions and technologies that translate research findings into practice to reduce and eliminate occupational injuries, illnesses, and fatalities in the construction sector. The purpose of this core is to bridge the gap between research and practice by effectively integrating knowledge, interventions, and technologies into workplace policies, procedures, and practices.

Applied Research Core (**up to 30% of total costs/year**). This core consists of a variety of individual research projects that address burden, need, and impact to improve occupational safety and health in the construction sector. Applied research builds the evidence base for effective prevention and intervention practices.

Guidance has been provided for the approximate budget allocation expected for each core. Applicants may request, with justification, more or less funding for any of the cores, provided they do not exceed the total costs allowed under this NOFO.

Applicants are encouraged to propose a pilot studies subprogram as part of the Planning, Administration, and Evaluation Core or the Research-to-Practice Core. Provide a clear description of the program within the appropriate core and fully justify the requested budget. All laws and regulations related to federal funding will apply. NIOSH will neither peer-review individual pilot project proposals nor make available an institutional review board for that purpose.

Research Project Categories

The types of research projects that are strongly recommended within the Applied Research and Research to Practice Cores are described below.

Applied Research builds the evidence base upon which future programs, policies, and progress are supported. Examples of research falling within this category include epidemiological studies, laboratory studies combined with field studies, and other projects

that work to reveal disease and injury causation or exacerbation. NIOSH encourages applicants to propose rigorous study designs, such as longitudinal studies, adequately powered study designs, studies involving comparison populations, the use of objective measures, and state-of-the-art data analysis techniques. Results from this type of research are most frequently disseminated via publications, conference presentations, and trade journals/bulletins. Generally, proposals of laboratory-only basic research will not be considered unless there is a compelling rationale, such as studying a new or emerging problem/exposure in the construction sector.

Intervention Research engages in the development, testing, or evaluation of biomedical, human factors, and/or behavioral solutions to an occupational safety and health problem or the improvement of an existing intervention. Intervention research may include the development of a new training program, testing of new technologies or approaches, or the evaluation of new workplace policies, procedures, or tailored programs. Intervention research is differentiated from implementation research through the performance of research or field tests to develop interventional strategies, whereas implementation research develops channels and/or partnerships to disseminate these strategies.

The proposed NIOSH National Construction Center is expected to identify the kinds of construction sector research questions and intervention research questions that can be accomplished through partnerships, collaborations, networks, and consortia. It should take full advantage of the scientific expertise and infrastructure offered by specialized programs and partners. Access to construction worker populations or jobsites is paramount and should be clearly described.

Implementation Research (previously referred to as Translation Research): These projects study the processes by which interventions that were developed and tested to address occupational safety and health (OSH) hazards and risks and/or promote health and well-being (i.e., under the intervention research umbrella) are disseminated, adopted, implemented, sustained, and scaled up equitably in real-world settings. Research under this area will use models, methods, and measures to systematically identify, develop, evaluate, and refine strategies that support the dissemination, adoption, implementation, sustained use, and scale up of previously tested interventions into community and workplace settings for all workers and especially those who are disproportionately impacted by OSH risks and hazards.

In the context of implementation research, strategies are defined as a set of activities (often multicomponent) that support the dissemination, adoption, implementation, sustainment, and scale up of tested interventions. Implementation research answers the ultimate question of what strategies work for whom under what circumstances to support the dissemination, adoption, implementation, sustainment, and scale up of tested interventions.

The proposed National Construction Center is expected to overcome technical and/or communication 'bottleneck' issues through collaborations and leverage external specialized programs and partners to advance implementation effectiveness. Scientific/academic collaboration is crucial for achieving intended outputs and outcomes.

Surveillance Research guides efforts to detect and monitor disease, injuries, and disabilities and to assess the impact of interventions. Surveillance information can inform policy changes, new program interventions, public communications, and priorities for research investment. Surveillance research may involve the identification and melding of disparate, available data sources to generate reliable morbidity and mortality estimates or the development of unique surveillance methods for specific trades, business sizes, hazards, or adverse health outcomes. Analyses of available surveillance data are not considered research in this context.

The National Construction Center is strongly encouraged to leverage financial and technical resources/systems for the design and operation of a construction sector surveillance system. The Center is expected to identify the types of construction research questions that can be accomplished through formal data access or sharing agreements, collaborations, networks, and consortia. Specialized consulting/expertise may be warranted for computing and data management infrastructure, data set linking, longitudinal and other types of analyses, website data depiction and access, among other areas. One output of this activity should be a publicly accessible yearly update of statistical data, such as an electronic injury and illness chart book.

For all of the above categories, the National Construction Center should have appropriate policies and procedures to ensure scientific integrity and responsible conduct and protections for federally sponsored research.

Note: Federally sponsored data access and open access publication policies will apply.

Strategic Goals

The NIOSH Strategic Plan for FY2019-2026 identifies strategic and intermediate goals for the NIOSH research portfolio. The strategic goals listed below represent the major health and safety issues facing the U.S. workforce and are the broad focus areas for this funding opportunity. The NIOSH Construction Program has highlighted components of the NIOSH Strategic Plan for the purposes of prioritizing work within NIOSH - the priority areas are:

- Preventing harmful noise exposure
- Reducing occupational musculoskeletal disorders
- Reducing occupational respiratory diseases
- Improving workplace safety to reduce traumatic injuries from events such as falls from elevation and struck-by incidents
- Promoting safe and healthy workplaces, including use of Total Worker Health® approaches, to address adverse mental health outcomes and issues related to harmful substance use.

The NIOSH Construction Program has, through work of the NORA Construction Sector

Council, identified 16 priority areas and emerging issues currently most relevant to the construction workforce in the U.S. Those priorities and emerging areas are published in the National Occupational Research Agenda for Construction.

Intermediate Goals

NIOSH has identified intermediate goals defined as specific actions needed to be taken in order to achieve or advance the strategic goals. In some cases, NIOSH has also identified areas where extramural research is needed to fill a gap or provide a capacity that NIOSH alone cannot fill. Extramural priority research goals have been identified as areas where work in the extramural community is sought. Priority will be given to projects that address the extramural research goals. A full description of the strategic and intermediate goals is available on the NIOSH Strategic Plan website. See the Extramural Priority Research Goals for more information on extramural priorities.

Applicants: Review the following websites for updates about NIOSH strategic and intermediate goals, research goal priorities, and other current information as you craft and submit your research proposals:

- National Occupational Research Agenda (NORA) - https://www.cdc.gov/nora/
- NIOSH Programs - https://www.cdc.gov/niosh/programs/
- NIOSH Office of Extramural Programs - https://www.cdc.gov/niosh/oep
- NIOSH Priority Goals for Extramural Research - https://www.cdc.gov/niosh/programs/prioritygoals.html
- NIOSH Construction Program Evaluation Review report - https://www.cdc.gov/niosh/programs/review/default.html

Burden, Need and Impact

The Center should address the burden, need, and potential impact of work-related injury and illness in the construction sector through a comprehensive and integrated approach to research, dissemination and implementation of evidence-based knowledge, interventions, and practices. The third decade of NORA encompasses a new framework for assessing research priorities and aligning NIOSH research investments. This burden-need-impact framework is known by its acronym, ***BNI***. Research funded under this announcement will advance the strategic and intermediate goals of the NIOSH Strategic Plan based on BNI. More information on the BNI Framework is available at the NIOSH website.

Burden. Burden is risk from any of the following: exposure to hazards; occurrence of injuries, illnesses, or deaths due to work-related factors; and impacts on economic factors and well-being. The extent of exposure can be in terms of the number of workers exposed, the magnitude of the exposure, or both. The assessment of burden is based on several main constructs: magnitude of the problem; health impact severity; exposure to workers; societal costs; new or emerging issues; and relationship to the work environment. The assessment of burden should consider whether there are disparities in workers' exposures and should examine social determinants of health which may be

responsible for inequities in workers' exposures. For emerging issues, the burden is anticipatory.

Need. Although burden is a foundational factor in setting priorities, need is also a critical factor. NIOSH should not only invest in an important burden area but also focus time and resources on the most relevant and impactful issues pertaining to the burden. The need for research also includes whether social determinants of health among the study population have been considered.

Impact. The assessment of impact is based on the potential for the activity to be successful in generating knowledge or products that will be used by NIOSH partners (intermediate outcomes). Researchers should describe how these intermediate outcomes might result in reduced burden or improved health, safety, and well-being of workers in the near-or long-term. An important component of impact addresses whether, and how, the benefits of the research are to be equitably distributed to all affected worker group.

Objectives/Outcomes

Center Goals and Objectives

Clearly state proposed goals and objectives of the National Construction Center in the application and directly link them to the health and safety burdens in construction being addressed. Justify the proposal by describing the burden of the problem, the need for the proposed research or activity, and the potential for impact or likelihood of successful results. Objectives should support the strategic and intermediate goals NIOSH has established.

Applicants may propose other topics, provided you describe a clear, compelling scientific rationale including stakeholder needs; target audience information for research and/or dissemination, and implementation; anticipated outputs and outcomes; and how and for whom the research will advance the scientific body of knowledge, policy, and/or practices. These topics may be proposed in the form of a research project proposal (for example, robotic–worker integration risk factors for occupational safety and health). NIOSH will not accept or fund surveillance-only or training-only proposals.

State which NIOSH construction strategic and intermediate goals are addressed for each core and individual research project and provide a rationale for how the proposed research will contribute to the specified priority area(s). Put this information in both the Description/Abstract and the Research Strategy (Significance) sections for each core and project of the application. For research projects, the proposal should identify the NIOSH strategic and intermediate goals your work will address.

Explain how the proposed activities and research will contribute to the NIOSH Research to Practice effort for construction and state the expected outputs and outcomes.

Target Population

The ultimate beneficiaries of this cooperative agreement are all construction workers in the United States. The construction industry is a high hazard industry, and all construction workers are important. Some worker groups have overlapping vulnerabilities that increase risks for adverse health outcomes even further. These include (but are not limited to) young, Hispanic immigrant workers who are employed by small construction businesses. Which population(s) of workers will you address in your research? Clearly identify them, either specifically or more broadly (for example, tradespeople, laborers, foremen, or professionals). See the National Occupational Research Agenda for Construction document for a discussion of target audiences.

Diversity, Equity, and Inclusion

In June 2019, NIOSH began an initiative to take substantive action in creating greater diversity, equity, and inclusion in its workforce, the workplace and in its service to the public. This initiative led to the establishment of the NIOSH Diversity, Equity, and Inclusion Office. The associated strategic plan is intended to guide actions that specifically address diversity, equity, inclusion, and accessibility (DEIA) in all aspects of NIOSH's work, including NIOSH-supported extramural programs. Applicants should demonstrate a commitment to DEIA in all aspects of their proposed Center (including partnerships, outputs, and outcomes) in the Research Strategy section of the application.

Asymmetrical power relationships along social axes such as age, class, gender, nativity, and race/ethnicity not only result in social, economic, and environmental disadvantages that impact the distribution of work-related benefits and risks, but also result in exclusionary research practices.

Developing inclusive research and dissemination practices, and the institutional capacity to effectively advance data equity and produce data driven solutions that reduce avoidable disparities and inequities, is essential to ensuring the well-being of the increasingly diverse workforce. Applicants should identify how the Center will ensure that research questions, data collection methods and analysis, and dissemination of results will be inclusive of the diversity in the construction sector workforce, especially those from groups that have historically been underrepresented. Applicants should also demonstrate how the design, content, format, and dissemination of outreach efforts will be tailored to the needs of workers from diverse backgrounds.

Collaboration/Partnerships

Interdisciplinary and multidisciplinary collaborations that share expertise are essential to advancing occupational safety and health. Partnerships are also critical to translate research findings into effective work practices, and these are encouraged by the NIOSH Research to Practice program (see below). Applicants are expected to propose relevant collaborations and/or partnerships that will strengthen the proposed work and seek to

address a wide range of occupational safety and health concerns, as determined by the burdens posed by these hazards and are encouraged to describe how their efforts will alleviate or eliminate these burdens.

Evaluation/Performance Measurement

Evaluations provide information for management and improve program effectiveness. Information concerning Evaluation of NIOSH Programs may be helpful. Effective program evaluation is a systematic way to improve and account for public health actions by involving procedures that are useful, feasible, ethical, and accurate. Understanding and applying the elements of a framework for evaluation of research projects may enhance the planning of effective public health strategies, the improvement of existing programs (including evidence-based activities), and the demonstration of beneficial results and impact of federal funding.

Ongoing evaluation of NIOSH National Construction Center activities as well as specific research and outreach projects or programs is expected and should be managed and coordinated by the Planning, Administration, and Evaluation Core. Submission of annual NIOSH Program Performance One-page summaries is expected. The Center is also strongly encouraged to interact with NIOSH and other partners to increase awareness of projects and evaluation techniques across partners and stakeholder groups. In addition to center-specific evaluation and performance measurement, the collaboration Center may be asked to contribute to periodic NIOSH program reviews.

Translation Plan

The NIOSH National Construction Center is expected to develop and implement a translation plan to move effective solutions into the workplace. The Center should use and leverage resources of NIOSH and other partners wherever feasible to strengthen and prevent duplication of effort.

Data Resources

NIOSH data resources are available to researchers at the NIOSH Data and Statistics Gateway. This includes Worker Health Charts that NIOSH creates from data it gathers from the BLS. These specialized charts assess the rates, distribution, and trends in workplace injuries, illnesses, and deaths. The data can be used to help provide the context and estimate the **burden** of the problems being addressed, the **need** for the proposed work, the **impact** on the workforce, and the potential long-term benefits of the proposed projects and activities. Additionally, issues can be contextualized through economic metrics including societal cost, medical cost, productivity losses, and disability costs.

Research-to-Practice

NIOSH has established a Research to Practice (r2p) approach to reduce or eliminate

occupational illness and injury by increasing the transfer and implementation of knowledge, interventions, and technologies into highly effective prevention practices and products into the workplace. Through r2p, NIOSH collaborates with partners on the use, adoption, and adaptation of NIOSH knowledge, interventions, and technologies that will move research into practice in order to reduce and eliminate injuries, illnesses, and fatalities. The r2p approach is an interactive process in which the occupational safety and health community—including researchers, communicators, decision-makers, and employer/employee groups—works collaboratively to

- Identify research needs
- Design, plan, and conduct studies
- Translate and disseminate existing knowledge, interventions, and technologies to relevant users for implementation in the workplace.
- Evaluate results to determine the impact on occupational safety and health.

Note to Applicants:

Applicants are expected to state how the proposed research addresses r2p, in both the Description (Abstract) and the Research Strategy (Significance) in Section IV. For example, describe the anticipated strategies for implementation and/or dissemination of research findings, including by audience segmentation and by the characteristics of the channels or modes of dissemination.

Outputs and Outcomes

Governmental agencies and organizations have been faced with increasing demand to measure the effectiveness of their funded research in improving public health. The products (outputs) of research activities and subsequent outcomes—that is, benefits or changes at an individual or population level—can measure effectiveness. ***Outputs*** are the immediate products or direct result of research or other occupational health activities. Examples include publications, reports, conference proceedings, presentations/posters, investigator career development, databases, tools, methods, guidelines, and recommendations.

The causes of work-related injuries and illnesses are complex and determining the effect that specific research activities have on them can take years. Thus, ***outcomes*** can be measured over time as either ***short-term, intermediate,*** or end outcomes.

Short-term outcomes are the immediate effects of NIOSH or NIOSH-funded initiatives, projects, or programs. Often, these effects include changes in learning, awareness, knowledge, attitudes, skills, opinions, motivations, and intent. While short-term outcomes are less compelling than intermediate outcomes because no change has yet occurred, project officers have more control over short-term outcomes than intermediate outcomes. Collecting data on all types of outcomes, as appropriate, is encouraged.

Intermediate outcomes are specific changes that occur as a result of research outputs.

Examples of intermediate outcomes include public or private policy changes, conduct of training or workshops based on project outputs, citations in the literature, inventions and patents, and adoption of technologies or methods developed by the researcher.

End outcomes are the ultimate goal of the research and the result of what individuals and organizations do with the knowledge or products generated by the research. Examples of end outcomes include a) reduction in construction-related illnesses, injuries, fatalities, near-miss incidents, and/or hazardous exposures and b) improvement in qualitative and/or quantitative indicators for safety culture and safety climate, safety program administration, construction safety costs/economics, and safety intervention and/or implementation effectiveness.

Applicants should provide a brief statement about expected outputs/products of the research and outcomes of their proposed research in the Description (Abstract) and in the Research Strategy (Significance) in Section IV.

See Section VIII. Other Information for award authorities and regulations.

Section II. Award Information

Funding Instrument

Cooperative Agreement: A support mechanism used when there will be substantial Federal scientific or programmatic involvement. Substantial involvement means that, after award, CDC/NIOSH scientific or program staff will assist, guide, coordinate, or participate in project activities. See Section VI.2 for additional information about the substantial involvement for this NOFO.

Application Types Allowed

New
Renewal
Resubmission
Revision

Note to Applicants:

After the December 2023 application due date, only *Revision* and *Resubmission* applications from the funded Center will be accepted for research projects that competed and were not funded in FY2024. New and Renewal applications will not be accepted for future application due dates.

The OER Glossary and the SF424 (R&R) Application Guide provide details on these application types. Only those application types listed here are allowed for this NOFO.

Clinical Trial?

Optional: Accepting applications that either propose or do not propose clinical trial(s)

Need help determining whether you are doing a clinical trial?

Funds Available and Anticipated Number of Awards

Estimated Total Funding: $5.75 million total costs (direct and indirect costs) in FY 2024.

NIOSH intends to commit approximately $28.75 million in total costs (direct and indirect) over the entire project period (up to 5 years).

Anticipated number of awards: NIOSH anticipates funding one award through this announcement.

The award issued under this NOFO is contingent upon the availability of funds and the submission of a sufficiently meritorious application.

Award Budget

$5,750,000 Total Costs per budget period

Award Ceiling: $5,750,000 total costs per budget period

Award Floor: $3,000,000 total costs per budget period

It is anticipated that the maximum amount for each application/award will be $5,750,000 in total costs (direct and indirect) for each 12-month budget period.

Award Project Period

5 years

The total project period for an application submitted in response to this NOFO may not exceed 5 years.

Throughout the project period, CDC's commitment to continuation of awards will depend on the availability of funds, evidence of satisfactory progress by the recipient (as documented in required reports), and CDC’s determination that continued funding is in the best interests of the federal government.

If you are successful and receive a Notice of Award, in accepting the award, you agree that the award and any activities thereunder are subject to all provisions of 45 CFR Part 75, currently in effect or implemented during the period of the award, other Department regulations and policies in effect at the time of the award, and applicable statutory provisions.

HHS/CDC grants policies as described in the HHS Grants Policy Statement will apply to

the applications submitted and awards made in response to this NOFO.

Section III. Eligibility Information

1. Eligible Applicants

Eligible Organizations

Higher Education Institutions

- Public/State Controlled Institutions of Higher Education
- Private Institutions of Higher Education

The following types of Higher Education Institutions are always encouraged to apply for CDC support as Public or Private Institutions of Higher Education:

o Hispanic-serving Institutions
- o Historically Black Colleges and Universities (HBCUs)
- o Tribally Controlled Colleges and Universities (TCCUs)
- o Alaska Native and Native Hawaiian Serving Institutions
- o Asian American Native American Pacific Islander Serving Institutions (AANAPISIs)

Nonprofits Other Than Institutions of Higher Education

- Nonprofits with 501(c)(3) IRS Status (Other than Institutions of Higher Education)
- Nonprofits without 501(c)(3) IRS Status (Other than Institutions of Higher Education)

For-Profit Organizations

- Small Businesses
- For-Profit Organizations (Other than Small Businesses)

Governments

- State Governments
- County Governments
- City or Township Governments
- Special District Governments
- Indian/Native American Tribal Governments (Federally Recognized)
- Indian/Native American Tribal Governments (Other than Federally Recognized)

Federal Government

- Eligible Agencies of the Federal Government
- U.S. Territory or Possession

Other

- Independent School Districts
- Public Housing Authorities/Indian Housing Authorities
- Native American Tribal Organizations (other than Federally recognized tribal governments)
- Faith-based or Community-based Organizations
- Regional Organizations

3. Bona Fide Agents: A Bona Fide Agent is an agency/organization identified by the state as eligible to submit an application under the state eligibility in lieu of a state application. If applying as a bona fide agent of a state or local government, a legal, binding agreement from the state or local government as documentation of the status is required. Attach with "Other Attachment Forms."
4. Federally Funded Research and Development Centers (FFRDCs): FFRDCs are operated, managed, and/or

administered by a university or consortium of universities, other not-for-profit or nonprofit organization, or an industrial firm, as an autonomous organization or as an identifiable separate operating unit of a parent organization. A FFRDC meets some special long-term research or development need which cannot be met as effectively by an agency's existing in-house or contractor resources. FFRDC's enable agencies to use private sector resources to accomplish tasks that are integral to the mission and operation of the sponsoring agency. For more information on FFRDCs, go to https://gov.ecfr.io/cgi-bin/searchECFR

Foreign Institutions

Non-domestic (non-U.S.) Entities (Foreign Institutions) **are not** eligible to apply.
Non-domestic (non-U.S.) components of U.S. Organizations **are not** eligible to apply.
Foreign components, as defined in the HHS Grants Policy Statement, **are not** allowed.

Required Registrations

Applicant Organizations

Applicant organizations must complete and maintain the following registrations as described in the SF 424 (R&R) Application Guide to be eligible to apply for or receive an award. Applicants must have a valid Unique Entity Identifier (UEI) number in order to begin each of the following registrations. All registrations must be completed prior to the application being submitted. Registration can take 6 weeks or more, so applicants should begin the registration process as soon as possible.

PLEASE NOTE: Effective April 4, 2022, applicants must have a Unique Entity Identifier (UEI) at the time of application submission. The UEI replaced the Data Universal Numbering System (DUNS) and is generated as part of SAM.gov registration. Current SAM.gov registrants have already been assigned their UEI and can view it in SAM.gov and Grants.gov. Additional information is available on the GSA website, SAM.gov, and Grants.gov-Finding the UEI.

· System for Award Management (SAM) – Applicants must complete and maintain an active registration, **which requires renewal at least annually**. The renewal process may require as much time as the initial registration. SAM registration includes the assignment of a Commercial and Government Entity (CAGE) Code for domestic organizations which have not already been assigned a CAGE Code.

o NATO Commercial and Government Entity (NCAGE) Code – Foreign organizations must obtain an NCAGE code (in lieu of a CAGE code) in order to register in SAM.

o Unique Entity Identifier (UEI)- A UEI is issued as part of the SAM.gov registration process. The same UEI must be used for all registrations, as well as on the grant application.

· eRA Commons - Once the unique organization identifier is established, organizations can register with eRA Commons in tandem with completing their Grants.gov registration; all registrations must be in place by time of submission. eRA Commons requires organizations to identify at least one Signing Official (SO) and at least one

Program Director/Principal Investigator (PD/PI) account in order to submit an application.

· Grants.gov – Applicants must have an active SAM registration in order to complete the Grants.gov registration. All applicant organizations must register with Grants.gov. Please visit www.Grants.gov at least 30 days prior to submitting your application to familiarize yourself with the registration and submission processes. The one-time registration process will take three to five days to complete. However, it is best to start the registration process at least two weeks prior to application submission.

Program Directors/Principal Investigators (PD(s)/PI(s)) and Senior/Key Personnel

All Senior/Key Personnel including PD(s)/PI(s) must also work with their institutional officials to register with the eRA Commons or ensure their existing Principal Investigator (PD/PI) eRA Commons account is affiliated with the eRA commons account of the applicant organization. All registrations must be successfully completed and active before the application due date. Applicant organizations are strongly encouraged to start the eRA Commons registration process at least four (4) weeks prior to the application due date. ASSIST requires that applicant users have an active eRA Commons account in order to prepare an application. It also requires that the applicant organization's Signing Official have an active eRA Commons Signing Official account in order to initiate the submission process. During the submission process, ASSIST will prompt the Signing Official to enter their Grants.gov Authorized Organizational Representative (AOR) credentials in order to complete the submission, therefore the applicant organization must ensure that their Grants.gov AOR credentials are active. If the PD/PI is also the organizational Signing Official, they must have two distinct eRA Commons accounts, one for each role. Obtaining an eRA Commons account can take up to 2 weeks.

Universal Identifier Requirements and System for Award Management (SAM)
All applicant organizations **must obtain** a Unique Entity Identifier (UEI) number as the Universal Identifier when applying for Federal grants or cooperative agreements. The UEI number is a twelve-digit number assigned by SAM.gov. An AOR should be consulted to determine the appropriate number. If the organization does not have a UEI number, an AOR should register through SAM.gov. Note this is an organizational number. Individual Program Directors/Principal Investigators do not need to register for a UEI number.

Additionally, organizations must maintain the registration with current information at all times during which it has an application under consideration for funding by CDC and, if an award is made, until a final financial report is submitted or the final payment is received, whichever is later.

SAM.gov is the primary registrant database for the Federal government and is the repository into which an entity must provide information required for the conduct of business as a recipient. Additional information about registration procedures may be found at SAM.gov and the SAM.gov Knowledge Base.

If an award is granted, the recipient organization must notify potential sub-recipients that no organization may receive a subaward under the grant unless the organization has provided its UEI number to the recipient organization.

Eligible Individuals (Program Director/Principal Investigator)
Any individual(s) with the skills, knowledge, and resources necessary to carry out the proposed research as the Project Director/Principal Investigator (PD/PI) is invited to work with his/her organization to develop an application for support. Individuals from underrepresented racial and ethnic groups as well as individuals with disabilities are always encouraged to apply for HHS/CDC support.

NOTE: The CDC does not make awards to individuals directly.

Responsiveness
A letter of intent is required. The information it contains allows NIOSH staff to estimate the potential review workload and plan the review.

If an application exceeds the five-year period of performance limit or the total cost limit of $5,750,000 per budget period (including consortium F&A costs), CDC/NIOSH will consider the application non-responsive, and it will not enter the peer review process. CDC/NIOSH will notify the applicant that the application did not meet the submission requirements.

A Center application for a period of performance of 3 years or less will be considered non-responsive, and CDC/NIOSH will notify the applicant that the application does not meet the submission requirements and will ask that it be withdrawn.

An application that does not propose multi-scientific collaboration with academic institutions will be deemed non-responsive, and CDC/NIOSH will request its withdrawal.

For this announcement, NIOSH will not consider or peer review training-only proposals, service-only programs, non-research proposals, or large institution-based worker safety and health protection program proposals. These types of applications will be considered non-responsive, and CDC/NIOSH will request their withdrawal.

Upon receipt, applications will be evaluated for completeness by NIH/CSR and CDC/NIOSH. CDC/NIOSH will review all applications for responsiveness. Incomplete and/or non-responsive applications will not be further reviewed for scientific merit.

2. Cost Sharing

This NOFO does not require cost sharing as defined in the HHS Grants Policy Statement.

3. Additional Information on Eligibility

Number of Applications
Only one application per institution (normally identified by having a unique UEI number) is allowed. As defined in the HHS Grants Policy Statement, applications received in

response to the same NOFO generally are scored individually and then ranked with other applications under peer review in their order of relative programmatic, technical, or scientific merit. CDC/NIOSH will not accept any application in response to this NOFO that is essentially the same as one currently pending initial peer review unless the applicant withdraws the pending application.

The CDC/NIOSH will not accept duplicate or highly overlapping applications under review at the same time per 2.3.7.4 Submission of Resubmission Application. This means that the CDC/NIOSH will not accept:

- A new (A0) application that is submitted before issuance of the summary statement from the review of an overlapping new (A0) or resubmission (A1) application.
- A resubmission (A1) application that is submitted before issuance of the summary statement from the review of the previous new (A0) application.
- An application that has substantial overlap with another application pending appeal of initial peer review (see 2.3.9.4 Similar, Essentially Identical, or Identical Applications).

Section IV. Application and Submission Information

1. Requesting an Application Package

The application forms package specific to this opportunity must be accessed through ASSIST or an institutional system-to-system (S2S) solution. A button to apply using ASSIST is available in Part 1 of this NOFO. See your administrative office for instructions if you plan to use an institutional system-to-system solution.

Applicants must use ASSIST or an institutional system-to-system (S2S) solution to prepare and submit their multi-project applications through Grants.gov to NIH. Although all NIH multi-project applications flow through Grants.gov, the Grants.gov Workspace application preparation system does NOT support multi-project applications

To use ASSIST, applicants must visit https://public.era.nih.gov where you can login using your eRA Commons credentials and enter the Notice of Funding Opportunity Number to initiate the application and begin the application preparation process.

If you experience problems accessing or using ASSIST, you can refer to the ASSIST Online Help Site at: https://era.nih.gov/erahelp/assist. Additional support is available from the NIH eRA Service desk via: http://grants.nih.gov/support/index.html.

- Email: commons@od.nih.gov.
- Phone: 301-402-7469 or (toll-free) 1-866-504-9552.
  Hours: Monday - Friday, 7 a.m. to 8 p.m. Eastern Time, excluding Federal holidays.

2. Content and Form of Application Submission

It is critical that applicants follow the Multi-Project (M) Instructions in the SF424 (R&R) Application Guide, except where instructed in this notice of funding opportunity to do otherwise. Conformance to the requirements in the Application Guide is required and

strictly enforced. Applications that are out of compliance with these instructions may be delayed or not accepted for review. The package associated with this NOFO includes all applicable mandatory and optional forms. Please note that some forms marked optional in the application package are required for submission of applications for this NOFO. Follow the instructions in the SF-424 Application Guide to ensure you complete all appropriate "optional" components.

When using ASSIST, all mandatory forms will appear as separate tabs at the top of the Application Information screen; applicants may add optional forms available for the NOFO by selecting the Add Optional Form button in the left navigation panel.

Letter of Intent
Due Date: **November 1, 2023**. Thereafter, 30 days prior to the future submission due dates.

A letter of intent is required, the information that it contains allows NIOSH staff to estimate the potential review workload and plan the review.

By the date listed in Part 1. Overview Information, prospective applicants are asked to submit a letter of intent that includes the following information:

- Descriptive title of proposed Center
- Titles for each proposed research project
- Name(s), address(es), email(s), and telephone number(s) of the PD(s)/PI(s) for the Center
- Names of all other component leads
- Participating institution(s)
- Number and title of this funding opportunity

The letter of intent should be sent to:

Michael Goldcamp, PhD
National Institute for Occupational Safety and Health (NIOSH)
Centers for Disease Control and Prevention (CDC)
Telephone: 304-285-5951
Email: MGoldcamp@cdc.gov

Page Limitations
All page limitations described in the SF424 Application Guide and the Table of Page Limits must be followed, with the following exceptions or additional requirements for this NOFO:

Only include proposed (prospective) work in the research strategy attachment to the PHS 398 Research Plan (i.e., "3. Research Strategy"). Past performance and/or prior accomplishments, whether for new or renewal applicants, is limited to 6 pages per component and should be attached to the Appendix of the PHS 398 Research Plan (i.e., "13. Appendix"). Related publications for the particular proposed component, whether for new or renewal applicants, should be attached to the progress report publication list of the PHS 398 Research Plan (i.e., "4. Progress Report Publication List"). There is no page limit

for related publications attachments.

Pages that exceed page limits described in this NOFO will be removed and not forwarded for peer review.

Available Components	Component Type for Submission	Research Strategy /Program Plan Page Limit	Required/Optional	Minimum	Maximum
Overall	Overall	12	Required	1	1
Planning, Administration, and Evaluation Core	Admin Core	12	Required	1	1
Construction Industry Data and Statistical Core	Data Core	12	Required	1	1
Communication, Outreach, and Education Core	Communication Core	12	Required	1	1
Research to Practice Core	Research to Practice	12	Required	1	1
Applied Research Projects	Project	12	Required	1	15

Note: References are not included in the page limits

Format for Attachments

Designed to maximize system-conducted validations, multiple separate attachments are required for a complete application. When the application is received by the agency, all submitted forms and all separate attachments are combined into a single document that is used by peer reviewers and agency staff. Applicants should ensure that all attachments are uploaded to the system.

CDC requires all text attachments to the Adobe application forms be submitted as PDFs and that all text attachments conform to the agency-specific formatting requirements noted in the SF424 (R&R) Application Guide at How to Apply - Application Guide.

Instructions for the Submission of Multi-Component Applications

The following section supplements the instructions found in the SF424 (R&R) Application Guide, and should be used for preparing a multi-component application.

Revision applications must include an Overall component and the components that are affected by the revision. Therefore, the component requirements listed below may not apply to the revision application.

The application should consist of the following required components:

- Overall
- Planning, Administrative, and Evaluation Core
- Construction Industry Data and Statistical Core
- Communication, Outreach, and Education Core
- Research-to-Practice Core
- Applied Research Projects

Any application that does not include all required components will be considered non-responsive and will not be reviewed.

Special Requirements for this Announcement

The applicant should consider the following recipient requirements when developing their application and budget request:

a. Participation in monthly strategic and coordination meetings or teleconferences with the NIOSH Office of Construction Safety and Health and the Office of Extramural Programs.

b. Participation in monthly grant administration teleconferences with CDC and NIOSH grants offices.

c. Serving as an active member of the NORA Construction Sector Council and its workgroups providing periodic National Construction Center program & research updates and data.

d. Planning and conducting an annual national construction research and research-to-practice meeting for overall advancement of safety and health in the U.S. construction industry. External experts may be needed for these meetings to accomplish the necessary objectives. The public meeting agenda and location(s) will be developed in cooperation with the NIOSH Office of Construction Safety and Health. Meeting materials, resources and/or program booklet will be made publicly available.

e. Recordkeeping for implementation and compliance monitoring for HHS and other administrative requirements that will apply for this announcement. Ethical, human, and animal research protections (such as the HHS Revised Common Rule), as well as policies for scientific integrity and data management and access (for example, a Data Management Plan) will apply. Detailed descriptions for a multi-institution-involved Data Management Plan (and data portals) will be required. Other HHS/CDC Administrative Policy Requirements will apply. See the CDC Office of Grants Services website for grant administrative requirements.

f. Planning and conducting brief, regular (for example, monthly) construction safety and health seminars/webinars, such as on injury and illness data, data-driven best practices, emerging issues in construction safety and health, prevention through design & modeling/BIM, human and/or mechanical factors, and U.S. construction industry characteristics and indicators.

g. Providing construction safety, health, and industry data and statistical consulting services for external/public requests to the maximum extent allowed by multi-agency policies and agreements. This

will require access or agreements for relevant data sources and adequate professional staffing throughout the funding period. Annual performance reports will include a summary of data and consulting services provided.

h. Providing construction-focused research-to-practice and health communication consulting services for external requests. The recipient is expected to have an adequate mix of full-time, professional staff members offering the disciplines and skills for this service. These staff members may also serve as key or support personnel on specific proposals.

i. Preparing an Annual Report of Major Accomplishments and Research Impact for Construction Safety and Health. A summary report is due at the end of each 12-month budget period and must be suitable for the NIOSH website (for example, compliant with Rehabilitation Act Section 508). A 10-page limit will apply.

j. Developing and maintaining a publicly accessible data gateway or portal for near-real-time research data and data descriptions/instructions for public use. Maintenance of the gateway/portal (including IT support) is required throughout the entire funding period. The applicant is to clearly describe arrangements or agreements with proposal sub-recipients for data access, to ensure a cogent plan. Letters of commitment from consortia research institutions are strongly encouraged.

k. Addressing NIOSH comments for draft reports, educational and other materials, including data summary, fact sheet, and the Annual Report.

l. Assisting in identifying and writing research impacts and outcomes in response to congressional and other requests to CDC and NIOSH. These activities are typically time critical and require prompt input.

m. Providing injury, illness, and other indicator data regularly. Online or electronic reports and summaries are expected annually. Timely responses are expected to data requests from NIOSH, state and federal OSHA, and others each year.

n. Compliance with limiting the use of CDC/NIOSH grant funds to support one international trip for sub-award researchers over the lifetime of their research projects. Applicants must clearly state the purpose of the trip, and how it will benefit the safety and health of U.S. construction workers.

o. Compliance with the HHS Revised Common Rule definition of a clinical trial and the applicable related requirements (for instance, a data safety monitoring plan; registration at ClinicalTrial.gov).

Note: Approximate budget allocation guidance has been provided in Section I.2. Approach. Applicants may request with justification more or less funding for any of the Cores provided they do not exceed the total costs allowed under this NOFO and that all required Cores are included in the application.

Note: Research Projects will be listed in the final application in the order in which they were entered in ASSIST as Research-Project 1, Research-Project 2, etc. The maximum number of the entire Applied Research Core is 15.

Please enter in ASSIST in the following order:

Overall Component
When preparing your application, use Component Type ‘Overall’.

All instructions in the SF424 (R&R) Application Guide must be followed, with the following additional instructions, as noted.

SF424 (R&R) Cover (Overall)
Complete entire form.

PHS 398 Cover Page Supplement (Overall)
Research & Related Other Project Information (Overall)
Follow standard instructions.

Project Summary/Abstract: Provide a succinct summary of the proposed work for the entire Center.

Project Narrative: In 1-3 sentences, describe the relevance of the research and outreach efforts proposed by the Center.

Facilities and other Resources: Provide a description of all resources for all proposed components in the Facilities and Other Resources attachment. The information will be used to evaluate the quality of the overall environment for the Center.

Equipment: Do not include. Equipment should be identified in the appropriate components. Equipment that is shared across components should be described in the Planning, Administration, and Evaluation Core.

Project/Performance Site Location(s) (Overall)
Enter primary site only.

A summary of Project/Performance Sites in the Overall section of the assembled application image in eRA Commons compiled from data collected in the other components will be generated upon submission.

Research & Related Senior/Key Person Profile (Overall)
Include only the Project Director/Principal Investigator (PD/PI) and any multi-PDs/PIs (if applicable to this NOFO) for the entire application. Component leads and other senior/key individuals should only be listed in the components in which they are active.

The Center will be an identifiable organizational unit formed by a single institution or a consortium of cooperating institutions. Therefore, lines of authority must be clearly specified. Each applicant institution will name a Director (Project Director/Principal Investigator, PD/PI) who will be the key figure in the administration, management and coordination of the cooperative agreement. This individual will be responsible for the organization and operation of the Center. The PD/PI should be a scientific leader experienced in their field of research and must be able to coordinate, integrate, and provide guidance in the establishment of the cores, programs, and projects.

Each Senior/Key Person, including the PD/PI, is allowed one biosketch for the entire application. If an individual will participate on multiple components, attach the biosketch to any single component. The biosketches must be comprehensive, covering multiple roles if a single individual has multiple roles within the application.

A summary of Senior/Key Persons followed by their Biographical Sketches in the Overall section of the assembled application image in eRA Commons will be generated upon submission.

Budget (Overall)
The only budget information included in the Overall component is the Estimated Project Funding section of the SF424 (R&R) Cover.

A budget summary in the Overall section of the assembled application image in eRA Commons compiled from detailed budget data collected in the other components will be generated upon submission.

PHS 398 Research Plan (Overall)
Introduction to Application: For Resubmission and Revision applications ONLY, an Introduction to Application is required in the Overall component.

Specific Aims: Describe the aims of the overall Center and outline how components will contribute to these aims. Provide a concise overview of the applicant's intent and the potential to function as a NIOSH National Construction Center. It should include the short, intermediate and long-term goals that are proposed. Applicants should describe the intended synergy, collaboration, and integration of major activities and/or leadership or Key Personnel who are responsible for the Center's goal attainment. Describe plans to collaborate and cooperate with key federal, non- federal and industry stakeholders.

Research Strategy: Provide an overview that describes the key scientific aspects of the Center and how the proposed Center structure (cores, programs, and projects) addresses the purpose and objectives described in this funding announcement. The application should be comprised of interrelated projects, programs, and cores, each capable of standing on its own merit but complementary and necessary for accomplishing the Center's proposed objectives. This section provides the applicant an opportunity to give a conceptual framework for the Center and a broad strategy for accomplishing the strategic goals. It also allows the applicant to collectively address the proposed research projects as well as identifying connections with Communication, Outreach, and Education Core activities.

Focusing on the Center as a whole, address (1) the importance of the overall goals of the Center and the critical barrier(s) to progress in the field that will be the focus, (2) how the resources of the proposed Center will improve scientific knowledge, technical capability, and/or improved practice and outreach, and (3) how the concepts, methods, technologies, services, or interventions that drive the construction occupational safety and health field will be changed if the proposed aims are achieved.

Considering the entire Center, describe how the proposed research seeks to shift current research, outreach or practice paradigms through use of novel concepts, approaches, methodologies, instrumentation, or interventions. Does the proposed work refine, improve, or apply in a new way present/existing/current concepts, approaches, methodologies, instrumentation, or interventions?

Include the major proposed efforts and studies and show how the cores, programs, and projects complement each other or are interdependent. Describe the mechanisms that will ensure the coherence and cohesiveness of the Center while maintaining a multidisciplinary focus.

Discuss the research projects individually and collectively as a research core and provide a clear and

considered agenda supporting the Centers' overall efforts. Applicants should address the following:

- Provide a brief description of the overall research objectives.
- Describe how all research projects within the Center will be managed, monitored, and coordinated.
- Identify the category of the proposed individual research projects (i.e., intervention, implementation, or surveillance).
- Provide a brief description of the Pilot Program (this is an optional component).

Consider both the NIOSH strategic plan and NORA construction research agenda as you develop proposals and identify the strategic and intermediate goals your research will support. Also review and consider the 2018 NIOSH Construction Program Review report and recommendations. Propose innovative or novel approaches to addressing the major health and safety issues facing the U.S. construction workforce and for moving the field forward through action designed to achieve these goals. An important consideration is demonstrating integrated research programs and/or projects, as well as nationally coordinated construction occupational safety and health research, dissemination, and implementation efforts for the entire United States.

Clearly describe how your proposed work in the construction sector will address the stated strategic and intermediate goals, and clearly identify the health and safety cross-sector(s) being addressed. Although the primary focus of this funding announcement is the construction sector, indicate whether and how the proposed projects or aspects of projects may be relevant to other NORA sectors.

Provide data to support the selection of the proposed work, such as morbidity rates, mortality rates, or indicators of the size of the population at risk, including estimates of the target population's potential risk of exposure to the hazard, frequency of exposure, or sociodemographic factors such as age, gender, and race/ethnicity. Similarly, you may provide qualitative data that describe exposures, the magnitude of the problem, and potential benefits and impacts of addressing the issue. Qualitative data may be necessary when the nature of the exposure or population at risk make collecting large-scale, representative, quantitative data difficult.

NIOSH has a number of resources available to researchers, including Worker Health Charts. NIOSH gathers worker health data from the BLS to create these specialized charts to assess the rates, distribution, and trends in workplace injuries, illnesses, and deaths. These data help provide context and estimate the burden of the problems addressed, the need for the proposed work, the impact on the workforce, and the potential long-term benefits of the proposed projects and activities. Economic metrics such as the societal cost, medical cost, impact on productivity, and disability costs also provide context for these issues.

Letters of Support: Include signed letters of support or collaboration from participating institutions. These can be included in the overall component, or with specific components if closely related to the aims in those cores, programs, or projects.

Resource Sharing Plan:

Individuals are required to comply with the instructions for the Resource Sharing Plans as provided in the SF424 (R&R) Application Guide with the following modifications.

Applicants that plan to collect public health data must submit a **Data Management Plan (DMP)** in the Resource Sharing Plan section of the PHS 398 Research Plan Component of the application. A DMP is required for each collection of public health data proposed. Applicants who contend that the public health data they collect or create are not appropriate for release must justify that contention in the DMP submitted with their application for CDC funds.

The DMP may be outlined in a narrative format or as a checklist but, at a minimum, should include:

• A description of the data to be collected or generated in the proposed project;

• Standards to be used for the collected or generated data;

• Mechanisms for, or limitations to, providing access to and sharing of the data (include a description of provisions for the protection of privacy, confidentiality, security, intellectual property, or other rights - this section should address access to identifiable and de-identified data);

• Statement of the use of data standards that ensure all released data have appropriate documentation that describes the method of collection, what the data represent, and potential limitations for use; and

• Plans for archiving and long-term preservation of the data, or explaining why long-term preservation and access are not justified (this section should address archiving and preservation of identifiable and de-identified data).

CDC OMB-approved templates may be used (e.g., NCCDPHP template).

Appendix:

Past performance and/or prior accomplishments within the last 5 years, whether for new or renewal applicants, are limited to 6 pages. Follow all instructions for the Appendix as described in the SF424 (R&R) Application Guide. Only the items listed in NOT-OD-17-098, plus additional items specifically listed in this funding opportunity announcement, are allowed.

Note: The applicant should include a Human Subjects summary table that lists all proposed relevant cores, programs, and projects along with human subjects information (project title, performance sites, FWAs, IRB approval date/status).

PHS Human Subjects and Clinical Trials Information (Overall)

When involving human subjects research, clinical research, and/or NIH-defined clinical trials follow all instructions for the PHS Human Subjects and Clinical Trials Information form in the SF424 (R&R) Application Guide, with the following additional instructions:

If you answered “Yes” to the question “Are Human Subjects Involved?” on the R&R Other Project Information form, there must be at least one human subjects study record using the **Study Record: PHS Human Subjects and Clinical Trials Information** form or a **Delayed Onset Study** record within the application. The study record(s) must be included in the component(s) where the work is being done, unless the same study spans multiple components. To avoid the creation of duplicate study records, a single study record with sufficient information for all involved components must be included in the Overall component when the same study spans multiple components.

Study Record: PHS Human Subjects and Clinical Trials Information

All instructions in the SF424 (R&R) Application Guide must be followed

Delayed Onset Study

Note: Delayed onset does NOT apply to a study that can be described but will not start immediately (i.e., delayed start). All instructions in the SF424 (R&R) Application Guide must be followed.

Planning, Administration and Evaluation Core (Required)

When preparing your application, use Component Type ‘Admin Core.’

All instructions in the SF424 (R&R) Application Guide must be followed.

SF424 (R&R) Cover (Planning, Administration and Evaluation Core)
Complete only the following fields:

- Applicant Information
- Type of Applicant (optional)
- Descriptive Title of Applicant's Project
- Proposed Project Start/Ending Dates

PHS 398 Cover Page Supplement (Planning, Administration, and Evaluation Core)
Research & Related Other Project Information (Planning, Administration and Evaluation Core)
Human Subjects: Answer only the 'Are Human Subjects Involved?' and 'Is the Project Exempt from Federal regulations?' questions.

Vertebrate Animals: Answer only the 'Are Vertebrate Animals Used?' question.

Project Narrative: In 1-3 sentences, describe the relevance of the planning and evaluation efforts proposed in the Core.

Project /Performance Site Location(s) (Planning, Administration and Evaluation Core)
List all performance sites that apply to the specific component.

Note: The Project Performance Site form allows up to 300 sites, prior to using additional attachment for additional entries.

Research & Related Senior/Key Person Profile (Planning, Administration and Evaluation Core)

The Program Director/Principal Investigator of the proposed Center should also be the Planning, Administration, and Evaluation Core Lead. In the Project Director/Principal Investigator section, use Project Role of 'Other' with Category of 'Center Director' and provide a valid eRA Commons ID in the Credential field. The biographical sketch should present evidence of scientific expertise relevant to the themes of the Center and demonstrate the capacity for the leadership of the Center.

In the additional Senior/Key Profiles section, list Senior/Key persons that are working in the component. An Associate (or Deputy) Director may be named who will be involved in the administrative and scientific efforts of the Center. If named, specify Project Role of 'Other' with Category of 'Associate Director.'

Include a single Biographical Sketch for each Senior/Key person listed in the application regardless of the number of components in which they participate. When a Senior/Key person is listed in multiple components, the Biographical Sketch can be included in any one component.

Budget (Planning, Administration and Evaluation Core)
Budget forms appropriate for the specific component will be included in the application package.

For this NOFO, CDC/NIOSH requires a detailed budget for each budget period requested. Each Core component should contain all budget and subaward information including indirect costs and consortium facilities and administration (F&A) costs.

Approximate budget allocation guidance has been provided in Section I.2. Approach.

Applicants may request with justification more or less funding for any of the Cores provided they do not exceed the total costs allowed under this NOFO and that all required Cores are included in the application.

The Pilot Study Program is an optional element for the Planning, Administration, and Evaluation Core and is intended to assist the Center in addressing new or emerging issues that were not present or recognizable at the time of application.

Note: The R&R Budget form included in many of the component types allows for up to 100 Senior/Key Persons in section A and 100 Equipment Items in section C prior to using attachments for additional entries. All other SF424 (R&R) instructions apply.

PHS 398 Research Plan (Planning, Administration and Evaluation Core)

Introduction to Application: For Resubmission and Revision applications, an Introduction to Application is allowed for each component.

Specific Aims: Clearly state how the Planning, Administration, and Evaluation Core will contribute to the goals of the Center and how this core integrates with other projects, programs, and cores. Provide an overview of how the Planning, Administration, and Evaluation Core will set the overall direction of the Center and ensure optimal utilization of Center resources.

This Core should include coordination and management and Center activities, advisory committees, and evaluation of programs and activities. This Core should also include evaluation plans, organization chart, and description of key personnel. Participation in periodic scientific meetings, conferences, and workshops is encouraged and may be requested under the Planning, Administration, and Evaluation and/or other relevant Core(s).

Research Strategy: Organize the Research Strategy of the Planning, Administration, and Evaluation Core into the required and optional elements:

- Center Planning and Administration
- Evaluation Program
- Pilot study program (optional)

Required Center administrative activities include establishing and maintaining advisory committees, ensuring human subject and animal use protocols are obtained and maintained (as applicable), and meeting all reporting requirements as detailed in the notice of award. The principal investigators, project directors, and other key personnel in the Center are expected to maintain close communication and collaboration to ensure that the Center cohesively addresses multiple aspects of the issues in the construction industry they are working to remediate. The core should develop and maintain a vision and goals that the Center will work toward achieving during the course of the performance period and beyond. The National Construction Center should establish (or maintain) an advisory board of stakeholders knowledgeable about construction health and safety in the nation.

The Evaluation Program is expected to include descriptions about activities, outputs, intermediate and end outcomes as well as plans to serve as the Center’s strategic roadmap as it plans, coordinates, implements, and assesses its impact over the funding period (and some intermediate and end outcomes

that may occur beyond the period of funding). Consideration should be given to factors including, but not limited to, the NIOSH Strategic Plan, burden and need information, stakeholder input, evaluation feedback, Center expertise, and previous work. The Evaluation Program should include tracking of outputs and identifying, collecting, and documenting intermediate outcomes that contribute to the Center's goals. The Evaluation Program will assist in planning and implementing evaluation efforts at the individual project and program level, particularly as it applies to the efficacy and effectiveness of proposed interventions. Any other evaluation activities that the Center plans to conduct for the purposes of assessing impact or Center/program improvement should also be incorporated into the Evaluation Program.

The Pilot Study Program is intended to assist the Center in addressing new or emerging problems that were not present or recognizable at the time of application. Applicants should describe the process by which they plan to identify, prioritize, and address newly arising concerns. Applicants should describe how the program will be managed and utilized to respond to emerging threats.

Letters of Support: Provide any letters of support that are specific to this core. Include a Letter of Support for each Advisory Committee member.

Resource Sharing Plan:

Individuals are required to comply with the instructions for the Resource Sharing Plans as provided in the SF424 (R&R) Application Guide with the following modifications.

Applicants that plan to collect public health data must submit a **Data Management Plan (DMP)** in the Resource Sharing Plan section of the PHS 398 Research Plan Component of the application. A DMP is required for each collection of public health data proposed. Applicants who contend that the public health data they collect or create are not appropriate for release must justify that contention in the DMP submitted with their application for CDC funds.

The DMP may be outlined in a narrative format or as a checklist but, at a minimum, should include:

• A description of the data to be collected or generated in the proposed project;

• Standards to be used for the collected or generated data;

• Mechanisms for, or limitations to, providing access to and sharing of the data (include a description of provisions for the protection of privacy, confidentiality, security, intellectual property, or other rights - this section should address access to identifiable and de-identified data);

• Statement of the use of data standards that ensure all released data have appropriate documentation that describes the method of collection, what the data represent, and potential limitations for use; and

• Plans for archiving and long-term preservation of the data, or explaining why long-term preservation and access are not justified (this section should address archiving and preservation of identifiable and de-identified data).

CDC OMB-approved templates may be used (e.g., NCCDPHP template).

Appendix:

Past performance and/or prior accomplishments within the last 5 years, whether for new or renewal applicants, are limited to 6 pages. Follow all instructions for the Appendix as described in the SF424 (R&R) Application Guide. Only the items listed in NOT-OD-17-098, plus additional items specifically listed in this funding opportunity announcement, are allowed.

PHS Human Subjects and Clinical Trials Information (Planning, Administration, and Evaluation Core)

When involving human subjects research, clinical research, and/or NIH-defined clinical trials follow all instructions for the PHS Human Subjects and Clinical Trials Information form in the SF424 (R&R) Application Guide, with the following additional instructions:

If you answered “Yes” to the question “Are Human Subjects Involved?” on the R&R Other Project Information form, you must include at least one human subjects study record using the **Study Record: PHS Human Subjects and Clinical Trials Information** form or a **Delayed Onset Study** record.

Study Record: PHS Human Subjects and Clinical Trials Information

All instructions in the SF424 (R&R) Application Guide must be followed.

Delayed Onset Study

Note: Delayed onset does NOT apply to a study that can be described but will not start immediately (i.e., delayed start).All instructions in the SF424 (R&R) Application Guide must be followed.

Construction Industry Data and Statistical Core (Required)
When preparing your application, use Component Type ‘Data Core.’

All instructions in the SF424 (R&R) Application Guide must be followed, with the following additional instructions, as noted.

SF424 (R&R) Cover (Construction Industry Data and Statistical Core)

Complete only the following fields:

- Applicant Information
- Type of Applicant (optional)
- Descriptive Title of Applicant’s Project
- Proposed Project Start/Ending Dates

PHS 398 Cover Page Supplement (Construction Industry Data and Statistical Core)

Research & Related Other Project Information (Construction Industry Data and Statistical Core)

Human Subjects: Answer only the 'Are Human Subjects Involved?' and 'Is the Project Exempt from Federal regulations?' questions.

Vertebrate Animals: Answer only the 'Are Vertebrate Animals Used?' question.

Project Narrative: In 1-3 sentences, describe the relevance of the research proposed in the Core.

Project /Performance Site Location(s) (Construction Industry Data and Statistical Core)

List all performance sites that apply to the specific component.

Note: The Project Performance Site form allows up to 300 sites, prior to using additional attachment for additional entries.

Research & Related Senior/Key Person Profile (Construction Industry Data and Statistical Core)

In the Project Director/Principal Investigator section of the form, use Project Role of 'Other' with Category of 'Core Lead' and provide a valid eRA Commons ID in the Credential field. In the additional Senior/Key Profiles section, list Senior/Key persons that are working in the component.

Include a single Biographical Sketch for each Senior/Key person listed in the application regardless of the number of components in which they participate. When a Senior/Key person is listed in multiple components, the Biographical Sketch can be included in any one component.

The Core lead should have the expertise appropriate to manage all aspects of the Core successfully.

Budget (Construction Industry Data and Statistical Core)

Budget forms appropriate for the specific component will be included in the application package.

For this NOFO, CDC/NIOSH requires a detailed budget for the initial budget year and a budget for each consecutive year of support.

Approximate budget allocation guidance has been provided in Section I.2. Approach. Applicants may request with justification more or less funding for any of the Cores provided they do not exceed the total costs allowed under this NOFO and that all required Cores are included in the application.

Note: The R&R Budget form included in many of the component types allows for up to 100 Senior/Key Persons in section A and 100 Equipment Items in section C prior to using attachments for additional entries. All other SF424 (R&R) instructions apply.

PHS 398 Research Plan (Construction Industry Data and Statistical Core)

Introduction to Application: For Resubmission and Revision applications, an Introduction to Application is allowed for each component.

Specific Aims: Describe the broad, long-range, and short-term objectives and goals of the proposed Construction Industry Data and Statistical Core. Outline a framework how the utilization of data will address key research questions and objectives related to construction-related injury, illness, deaths, industry characteristics, and relevant employment, demographic, and economic variables.

Research Strategy:

Describe how the Core activities will contribute to meeting the Center's goals and objectives and explain the rationale for selection of the methods, technologies, data, and approaches proposed to accomplish the specific aims of the Center.

Describe the data acquisition process and sources that the Construction Industry Data and Statistical Core will utilize to collect construction-related data. Explain the rationale for selecting these sources and outline quality control measures to ensure the accuracy and reliability of the acquired data.

Outline the analytical approaches and statistical methods that will be employed to analyze and interpret the collected data. Justify the chosen methods based on their appropriateness for addressing the research questions and objectives identified in the specific aims.

Detail the mechanisms for data dissemination, including the development of reports, dashboards, and other tools to effectively communicate the acquired insights, trends, and findings to the construction industry stakeholders. Discuss strategies for reaching a wide audience and promoting the practical application of the data-driven knowledge.

Letters of Support: Provide any letters of support that are specific to this core.

Resource Sharing Plan:

Individuals are required to comply with the instructions for the Resource Sharing Plans as provided in the SF424 (R&R) Application Guide with the following modifications.

Applicants that plan to collect public health data must submit a **Data Management Plan (DMP)** in the Resource Sharing Plan section of the PHS 398 Research Plan Component of the application. A DMP is required for each collection of public health data proposed. Applicants who contend that the public health data they collect or create are not appropriate for release must justify that contention in the DMP submitted with their application for CDC funds.

The DMP may be outlined in a narrative format or as a checklist but, at a minimum, should include:

• A description of the data to be collected or generated in the proposed project;

• Standards to be used for the collected or generated data;

• Mechanisms for, or limitations to, providing access to and sharing of the data (include a description of provisions for the protection of privacy, confidentiality, security, intellectual property, or other rights - this section should address access to identifiable and de-identified data);

• Statement of the use of data standards that ensure all released data have appropriate documentation that describes the method of collection, what the data represent, and potential limitations for use; and

• Plans for archiving and long-term preservation of the data, or explaining why long-term preservation and access are not justified (this section should address archiving and preservation of identifiable and de-identified data).

CDC OMB-approved templates may be used (e.g., NCCDPHP template).

Appendix:

Past performance and/or prior accomplishments within the last 5 years, whether for new or renewal applicants, are limited to 6 pages. Follow all instructions for the Appendix as described in the SF424 (R&R) Application Guide. Only the items listed in NOT-OD-17-098, plus additional items specifically listed in this funding opportunity announcement, are allowed.

PHS Human Subjects and Clinical Trials Information (Construction Industry Data and Statistical Core)

When involving human subjects research, clinical research, and/or NIH-defined clinical trials follow all instructions for the PHS Human Subjects and Clinical Trials Information form in the SF424 (R&R) Application Guide, with the following additional instructions:

If you answered “Yes” to the question “Are Human Subjects Involved?” on the R&R Other Project Information form, you must include at least one human subjects study record using the **Study Record: PHS Human Subjects and Clinical Trials Information** form or a **Delayed Onset Study** record.

Study Record: PHS Human Subjects and Clinical Trials Information

All instructions in the SF424 (R&R) Application Guide must be followed

Delayed Onset Study

Note: Delayed onset does NOT apply to a study that can be described but will not start immediately (i.e.,

delayed start). All instructions in the SF424 (R&R) Application Guide must be followed.

Communication, Outreach, and Education Core (Required)

When preparing your application, use Component Type 'Communication Core.'

All instructions in the SF424 (R&R) Application Guide must be followed.

SF424 (R&R) Cover (Communication, Outreach, and Education Core)

Complete only the following fields:

- Applicant Information
- Type of Applicant (optional)
- Descriptive Title of Applicant's Project
- Proposed Project Start/Ending Dates

PHS 398 Cover Page Supplement (Communication, Outreach, and Education Core)

Research & Related Other Project Information (Communication, Outreach, and Education Core)

Human Subjects: Answer only the 'Are Human Subjects Involved?' and 'Is the Project Exempt from Federal regulations?' questions.

Vertebrate Animals: Answer only the 'Are Vertebrate Animals Used?' question.

Project Narrative: In 1-3 sentences, describe the relevance of the research and outreach efforts proposed in the Core.

Project /Performance Site Location(s) (Communication, Outreach, and Education Core)

List all performance sites that apply to the specific component.

Note: The Project Performance Site form allows up to 300 sites, prior to using additional attachment for additional entries.

Research & Related Senior/Key Person Profile (Communication, Outreach, and Education Core)

In the Project Director/Principal Investigator section of the form, use Project Role of 'Other' with Category of 'Core Lead' and provide a valid eRA Commons ID in the Credential field. In the additional Senior/Key Profiles section, list Senior/Key persons that are working in the component.

Include a single Biographical Sketch for each Senior/Key person listed in the application regardless of the number of components in which they participate. When a Senior/Key person is listed in multiple components, the Biographical Sketch can be included in any one component.

The Core lead should have the expertise appropriate to manage all aspects of the Core successfully.

Budget (Communication, Outreach, and Education Core)

Budget forms appropriate for the specific component will be included in the application package.

For this NOFO, CDC/NIOSH requires a detailed budget for the initial budget year and a budget for each consecutive year of support.

Approximate budget allocation guidance has been provided in Section I.2. Approach. Applicants may

request with justification more or less funding for any of the Cores provided they do not exceed the total costs allowed under this NOFO and that all required Cores are included in the application.

Note: The R&R Budget form included in many of the component types allows for up to 100 Senior/Key Persons in section A and 100 Equipment Items in section C prior to using attachments for additional entries. All other SF424 (R&R) instructions apply.

PHS 398 Research Plan (Communication, Outreach, and Education Core)

Introduction to Application: For Resubmission and Revision applications, an Introduction to Application is allowed for each component.

Specific Aims: Briefly describe the overall specific aims, and the proposed activities and services of the Communication, Outreach, and Education Core. Clearly describe the relationship of the Core to the overall Center's goals and how the proposed activities relate to the other research projects and cores. Describe the anticipated strategies for dissemination and/or implementation of research findings.

Research Strategy: The Communication, Outreach, and Education Core should be broad in scope and prioritize activities that will have an impact on construction worker health and safety. This Core must develop an outreach plan that aligns with the Center's goals and considers the diverse needs of stakeholders to support successful transfer and adoption by intermediaries and/or end users. When developing the plan, the Center should consider its activities, anticipated project outputs and primary target audiences. The applicant should describe the anticipated strategies for dissemination and implementation of research findings, including the audiences to be reached and the methods to reach those audiences.

The Communication, Outreach, and Education Core should have an adaptable, scalable plan for the entire project period. This should include plans for sustainable partnerships with diverse stakeholder groups that help improve occupational safety and health in the construction sector.

The plan should also reflect how personnel in this core will work with those in other components to better integrate, at project conception, consideration of primary target audiences, modalities (the most appropriate outputs) to reach them, and a plan for achieving impact.

Letters of Support: Provide any letters of support that are specific to this core, particularly focusing on non-profits, community organizations, stakeholders, and other key partners in outreach and educational efforts.

Resource Sharing Plan:

Individuals are required to comply with the instructions for the Resource Sharing Plans as provided in the SF424 (R&R) Application Guide with the following modifications.

Applicants that plan to collect public health data must submit a **Data Management Plan (DMP)** in the Resource Sharing Plan section of the PHS 398 Research Plan Component of the application. A DMP is required for each collection of public health data proposed. Applicants who contend that the public health data they collect or create are not appropriate for release must justify that contention in the DMP submitted with their application for CDC funds.

The DMP may be outlined in a narrative format or as a checklist but, at a minimum, should include:

• A description of the data to be collected or generated in the proposed project;

• Standards to be used for the collected or generated data;

• Mechanisms for, or limitations to, providing access to and sharing of the data (include a description of

provisions for the protection of privacy, confidentiality, security, intellectual property, or other rights - this section should address access to identifiable and de-identified data);

• Statement of the use of data standards that ensure all released data have appropriate documentation that describes the method of collection, what the data represent, and potential limitations for use; and

• Plans for archiving and long-term preservation of the data, or explaining why long-term preservation and access are not justified (this section should address archiving and preservation of identifiable and de-identified data).

CDC OMB-approved templates may be used (e.g., NCCDPHP template).

Appendix:

Past performance and/or prior accomplishments within the last 5 years, whether for new or renewal applicants, are limited to 6 pages. Follow all instructions for the Appendix as described in the SF424 (R&R) Application Guide. Only the items listed in NOT-OD-17-098, plus additional items specifically listed in this funding opportunity announcement, are allowed.

PHS Human Subjects and Clinical Trials Information (Communication, Outreach, and Education Core)

When involving human subjects research, clinical research, and/or NIH-defined clinical trials follow all instructions for the PHS Human Subjects and Clinical Trials Information form in the SF424 (R&R) Application Guide, with the following additional instructions:

If you answered “Yes” to the question “Are Human Subjects Involved?” on the R&R Other Project Information form, you must include at least one human subjects study record using the **Study Record: PHS Human Subjects and Clinical Trials Information** form or a **Delayed Onset Study** record.

Study Record: PHS Human Subjects and Clinical Trials Information

All instructions in the SF424 (R&R) Application Guide must be followed

Delayed Onset Study

Note: Delayed onset does NOT apply to a study that can be described but will not start immediately (i.e., delayed start).All instructions in the SF424 (R&R) Application Guide must be followed.

Research-to-Practice Core (Required)

When preparing your application, use Component Type ‘Research to Practice.’

All instructions in the SF424 (R&R) Application Guide must be followed.

SF424 (R&R) Cover (Research-to-Practice Core)

Complete only the following fields:

- Applicant Information
- Type of Applicant (optional)
- Descriptive Title of Applicant’s Project
- Proposed Project Start/Ending Dates

PHS 398 Cover Page Supplement (Research-to-Practice Core)

Research & Related Other Project Information (Research-to-Practice Core)

Human Subjects: Answer only the 'Are Human Subjects Involved?' and 'Is the Project Exempt from Federal regulations?' questions.

Vertebrate Animals: Answer only the 'Are Vertebrate Animals Used?' question.

Project Narrative: In 1-3 sentences, describe the relevance of the research-to-practice efforts proposed in the Core.

Project /Performance Site Location(s) (Research-to-Practice Core)

List all performance sites that apply to the specific component.

Note: The Project Performance Site form allows up to 300 sites, prior to using additional attachment for additional entries.

Research & Related Senior/Key Person Profile (Research-to-Practice Core)

In the Project Director/Principal Investigator section of the form, use Project Role of 'Other' with Category of 'Core Lead' and provide a valid eRA Commons ID in the Credential field. In the additional Senior/Key Profiles section, list Senior/Key persons that are working in the component.

Include a single Biographical Sketch for each Senior/Key person listed in the application regardless of the number of components in which they participate. When a Senior/Key person is listed in multiple components, the Biographical Sketch can be included in any one component.

The Core lead should have the expertise appropriate to manage all aspects of the Core successfully.

Budget (Research-to-Practice Core)

Budget forms appropriate for the specific component will be included in the application package.

For this NOFO, CDC/NIOSH requires a detailed budget for the initial budget year and a budget for each consecutive year of support.

Approximate budget allocation guidance has been provided in Section I.2. Approach. Applicants may request with justification more or less funding for any of the Cores provided they do not exceed the total costs allowed under this NOFO and that all required Cores are included in the application.

The Pilot Study Program is an optional element for the Research-to-Practice Core and is intended to assist the Center in addressing new or emerging issues that were not present or recognizable at the time of application.

Note: The R&R Budget form included in many of the component types allows for up to 100 Senior/Key Persons in section A and 100 Equipment Items in section C prior to using attachments for additional entries. All other SF424 (R&R) instructions apply.

PHS 398 Research Plan (Research-to-Practice Core)

Introduction to Application: For Resubmission and Revision applications, an Introduction to Application is allowed for each component.

Specific Aims: Describe the broad, long-range, and short-term objectives and goals of the Research-to-Practice Core, highlighting its role in facilitating the adoption of interventions and technologies to reduce occupational injuries, illness, and fatalities in the construction sector.

Research Strategy:

Describe how the proposed activities of the Research-to-Practice Core will directly contribute to the achievement of the Center's overall goals and objectives. Highlight the key areas where the Core's efforts will have the most impact on reducing occupational injuries, illness, and fatalities in the construction industry.

Provide a rationale for the selection of proposed activities and approaches to accomplish its specific aims. Explain why these choices are the most effective and suitable for bridging the gap between research and practice in the construction sector.

The Research-to-Practice Core should include the development and transfer of new technologies and/or tests the efficacy of information dissemination strategies (e.g., that contributes much-needed information to the scientific knowledge base).

Letters of Support: Provide any letters of support that are specific to this core.

Resource Sharing Plan:

Individuals are required to comply with the instructions for the Resource Sharing Plans as provided in the SF424 (R&R) Application Guide with the following modifications.

Applicants that plan to collect public health data must submit a **Data Management Plan (DMP)** in the Resource Sharing Plan section of the PHS 398 Research Plan Component of the application. A DMP is required for each collection of public health data proposed. Applicants who contend that the public health data they collect or create are not appropriate for release must justify that contention in the DMP submitted with their application for CDC funds.

The DMP may be outlined in a narrative format or as a checklist but, at a minimum, should include:

• A description of the data to be collected or generated in the proposed project;

• Standards to be used for the collected or generated data;

• Mechanisms for, or limitations to, providing access to and sharing of the data (include a description of provisions for the protection of privacy, confidentiality, security, intellectual property, or other rights - this section should address access to identifiable and de-identified data);

• Statement of the use of data standards that ensure all released data have appropriate documentation that describes the method of collection, what the data represent, and potential limitations for use; and

• Plans for archiving and long-term preservation of the data, or explaining why long-term preservation and access are not justified (this section should address archiving and preservation of identifiable and de-identified data).

CDC OMB-approved templates may be used (e.g., NCCDPHP template).

Appendix:

Past performance and/or prior accomplishments within the last 5 years, whether for new or renewal applicants, are limited to 6 pages. Follow all instructions for the Appendix as described in the SF424 (R&R) Application Guide. Only the items listed in NOT-OD-17-098, plus additional items specifically listed in this funding opportunity announcement, are allowed.

PHS Human Subjects and Clinical Trials Information (Research-to-Practice Core)

When involving human subjects research, clinical research, and/or NIH-defined clinical trials follow all

instructions for the PHS Human Subjects and Clinical Trials Information form in the SF424 (R&R) Application Guide, with the following additional instructions:

If you answered “Yes” to the question “Are Human Subjects Involved?” on the R&R Other Project Information form, you must include at least one human subjects study record using the **Study Record: PHS Human Subjects and Clinical Trials Information** form or a **Delayed Onset Study** record.

Study Record: PHS Human Subjects and Clinical Trials Information

All instructions in the SF424 (R&R) Application Guide must be followed

Delayed Onset Study

Note: Delayed onset does NOT apply to a study that can be described but will not start immediately (i.e., delayed start).All instructions in the SF424 (R&R) Application Guide must be followed

Research Projects (Required)

When preparing your application, use Component Type ‘Project.’ Applicants will complete this form set for each individual research project.

All instructions in the SF424 (R&R) Application Guide must be followed.

SF424 (R&R) Cover (Research Project)

Complete only the following fields:

- Applicant Information
- Type of Applicant (optional)
- Descriptive Title of Applicant’s Project
- Proposed Project Start/Ending Dates

PHS 398 Cover Page Supplement (Research Project)

Research & Related Other Project Information (Research Project)

Human Subjects: Answer only the ‘Are Human Subjects Involved?’ and 'Is the Project Exempt from Federal regulations?’ questions.

Vertebrate Animals: Answer only the ‘Are Vertebrate Animals Used?’ question.

Project Narrative: In 1-3 sentences, describe the relevance of the proposed research.

Project /Performance Site Location(s) (Research Project)

List all performance sites that apply to the specific component.

Note: The Project Performance Site form allows up to 300 sites, prior to using additional attachment for additional entries.

Research & Related Senior/Key Person Profile (Research Project)

In the Project Director/Principal Investigator section of the form, use Project Role of ‘Other’ with Category of ‘Project Lead’ and provide a valid eRA Commons ID in the Credential field. In the additional Senior/Key Profiles section, list Senior/Key persons that are working in the component.

Include a single Biographical Sketch for each Senior/Key person listed in the application regardless of the number of components in which they participate. When a Senior/Key person is listed in multiple components, the Biographical Sketch can be included in any one component.

The Research Project lead should have the expertise appropriate to manage all aspects of the Project successfully.

Budget (Research Project)

Budget forms appropriate for the specific component will be included in the application package.

There are no established funding limits for individual research projects. Applicants must work within the overall funding level for the Applied Research Core. The Applied Research Core is comprised of all research projects. Research projects can span any number of years within the Center's five-year project period. That is, research projects can be from 1 to 5 years in length.

For this NOFO, CDC/NIOSH requires a detailed budget for the initial budget year and a budget for each consecutive year of support.

Note: The R&R Budget form included in many of the component types allows for up to 100 Senior/Key Persons in section A and 100 Equipment Items in section C prior to using attachments for additional entries. All other SF424 (R&R) instructions apply.

PHS 398 Research Plan (Research Project)

Introduction to Application: For Resubmission and Revision applications, an Introduction to Application is allowed for each project.

Specific Aims: Briefly describe the overall specific aims of the research project. Clearly describe the relationship of the research project to the overall Center's goals.

Research Strategy: It is anticipated that proposed research projects will vary widely in terms of topic/focus, degree of difficulty, and required resources. The projects should clearly align with the overall goals of the NIOSH Construction Program. The research strategy should be limited to 12 pages.

The need for individual research projects should be supported by information that addresses burden, need, and impact for occupational safety and health in the construction sector. Applied research may include emerging technologies, approaches, and techniques. Applied research builds the evidence base for effective prevention and intervention practices that ultimately result in lower burden.

Individual research project proposals may vary in scope, duration, and cost with the number of years of support (not to exceed 5 years), and budget. Each project must be written as a stand-alone section using the guidance provided in this announcement (see Section IV., No. 2) to facilitate peer review of individual projects.

NIOSH encourages hypothesis-driven research proposals that address priority topics (as determined by burden, need, and impact), involve comparison population(s), and a strong, descriptive data analysis plan. For projects involving multiple institutions, the proposal should contain descriptive letters of collaboration that substantiate key roles and responsibilities and address any overlap or duplication.

Letters of Support: Provide any letters of support that are specific to the research project, particularly for letters of collaboration or from consultants.

Resource Sharing Plan:

Individuals are required to comply with the instructions for the Resource Sharing Plans as provided in the

SF424 (R&R) Application Guide with the following modifications.

Applicants that plan to collect public health data must submit a **Data Management Plan (DMP)** in the Resource Sharing Plan section of the PHS 398 Research Plan Component of the application. A DMP is required for each collection of public health data proposed. Applicants who contend that the public health data they collect or create are not appropriate for release must justify that contention in the DMP submitted with their application for CDC funds.

The DMP may be outlined in a narrative format or as a checklist but, at a minimum, should include:

• A description of the data to be collected or generated in the proposed project;

• Standards to be used for the collected or generated data;

• Mechanisms for, or limitations to, providing access to and sharing of the data (include a description of provisions for the protection of privacy, confidentiality, security, intellectual property, or other rights - this section should address access to identifiable and de-identified data);

• Statement of the use of data standards that ensure all released data have appropriate documentation that describes the method of collection, what the data represent, and potential limitations for use; and

• Plans for archiving and long-term preservation of the data, or explaining why long-term preservation and access are not justified (this section should address archiving and preservation of identifiable and de-identified data).

CDC OMB-approved templates may be used (e.g., NCCDPHP template).

Appendix:

Past performance and/or prior accomplishments within the last 5 years, whether for new or renewal applicants, are limited to 6 pages. Follow all instructions for the Appendix as described in the SF424 (R&R) Application Guide. Only the items listed in NOT-OD-17-098, plus additional items specifically listed in this funding opportunity announcement, are allowed.

PHS Human Subjects and Clinical Trials Information (Research Project)

When involving human subjects research, clinical research, and/or NIH-defined clinical trials follow all instructions for the PHS Human Subjects and Clinical Trials Information form in the SF424 (R&R) Application Guide, with the following additional instructions:

If you answered “Yes” to the question “Are Human Subjects Involved?” on the R&R Other Project Information form, you must include at least one human subjects study record using the **Study Record: PHS Human Subjects and Clinical Trials Information** form or a **Delayed Onset Study** record.

Study Record: PHS Human Subjects and Clinical Trials Information

All instructions in the SF424 (R&R) Application Guide must be followed

Delayed Onset Study

Note: Delayed onset does NOT apply to a study that can be described but will not start immediately (i.e., delayed start).All instructions in the SF424 (R&R) Application Guide must be followed.

3. Unique Entity Identifier and System for Award Management

(SAM)

See Part 2. Section III.1 for information regarding the requirement for obtaining a unique entity identifier and for completing and maintaining active registrations in System for Award Management (SAM), NATO Commercial and Government Entity (NCAGE) Code (if applicable), eRA Commons, and Grants.gov.

4. Submission Dates and Times

Part I. Overview Information contains information about Key Dates. Applicants are strongly encouraged to allocate additional time and submit in advance of the deadline to ensure they have time to make any corrections that might be necessary for successful submission. This includes the time necessary to complete the application resubmission process that may be necessary, if errors are identified during validation by Grants.gov and the NIH eRA systems. The application package is not complete until it has passed the Grants.gov and NIH eRA Commons submission and validation processes. Applicants will use a platform or system to submit applications. When a submission date falls on a weekend or Federal holiday, the application deadline is automatically extended to the next business day.

ASSIST is a commonly used platform because it provides a validation of all requirements prior to submission. If ASSIST detects errors, then the applicant must correct errors before their application can be submitted. Applicants should view their applications in ASSIST after submission to ensure accurate and successful submission through Grants.gov. If the submission is not successful and post-submission errors are found, then those errors must be corrected, and the application must be resubmitted in ASSIST.

Applicants are able to access, view, and track the status of their applications in the eRA Commons.

Information on the submission process is provided in the SF-424 (R&R) Application Guidance and ASSIST User Guide.

Note: HHS/CDC grant submission procedures do not provide a grace period beyond the grant application due date time to correct any error or warning notices of noncompliance with application instructions that are identified by Grants.gov or eRA systems (i.e., error correction window).

Applicants who encounter problems when submitting their applications must attempt to resolve them by contacting the NIH eRA Service desk at:

Toll-free: 1-866-504-9552; Phone: 301-402-7469

http://grants.nih.gov/support/index.html

Hours: Mon-Fri, 7 a.m. to 8 p.m. Eastern Time (closed on Federal holidays)

Problems with Grants.gov can be resolved by contacting the Grants.gov Contact Center at:

Toll-free: 1-800-518-4726

https://www.grants.gov/web/grants/support.html

support@grants.gov

Hours: 24 hours a day, 7 days a week; closed on Federal holidays

It is important that applicants complete the application submission process well in advance of the due date time.

After submission of your application package, applicants will receive a "submission receipt" email generated by Grants.gov. Grants.gov will then generate a second e-mail message to applicants which will either validate or reject their submitted application package. A third and final e-mail message is generated once the applicant's application package has passed validation and the grantor agency has confirmed receipt of the application.

Unsuccessful Submissions: If an application submission was unsuccessful, the applicant must:

1. Track submission and verify the submission status (tracking should be done initially regardless of rejection or success).

a. If the status states "rejected," be sure to save time stamped, documented rejection notices, and do #2a or #2b.

2. Check emails from both Grants.gov and NIH eRA Commons for rejection notices. If the status states "rejected" and there is time before the deadline, correct the problem(s) and resubmit as soon as possible.

a. If the deadline has passed, he/she should email the Grants Management contact listed in the Agency Contacts section of this announcement explaining why the submission failed.

b. If there is time before the deadline, correct the problem(s) and resubmit as soon as possible.

Electronically submitted applications must be submitted no later than 11:59 PM Eastern Time on the listed application due date.

Applicants are responsible for viewing their application before the due date in the eRA Commons to ensure accurate and successful submission.

Information on the submission process and a definition of on-time submission are

provided in the SF424 (R&R) Application Guide.

5. Intergovernmental Review (E.O. 12372)

This initiative is not subject to intergovernmental review.

6. Funding Restrictions

Expanded Authority:

For more information on expanded authority and pre-award costs, go to the HHS Grants Policy Statement and speak to your GMS.

All HHS/CDC awards are subject to the federal regulations, in 45 CFR Part 75, terms and conditions, and other requirements described in the HHS Grants Policy Statement. pre-award costs may be allowable as an expanded authority, but only if authorized by CDC.

Public Health Data:

CDC requires that mechanisms for, and cost of, public health data sharing be included in grants, cooperative agreements, and contracts. The cost of sharing or archiving public health data may also be included as part of the total budget requested for first-time or continuation awards.

Data Management Plan:

Fulfilling the data-sharing requirement must be documented in a Data Management Plan (DMP) that is developed during the project planning phase prior to the initiation of generating or collecting public health data and must be included in the Resource Sharing Plan(s) section of the PHS398 Research Plan Component of the application.

Applicants who contend that the public health data they collect or create are not appropriate for release must justify that contention in the DMP submitted with their application for CDC funds (for example, privacy and confidentiality considerations, embargo issues).

Recipients who fail to release public health data in a timely fashion will be subject to procedures normally used to address lack of compliance (for example, reduction in funding, restriction of funds, or award termination). For further information, please see revised AR25.

Human Subjects:

Funds relating to the conduct of research involving human subjects will be restricted until the appropriate assurances and Institutional Review Board (IRB) approvals are in place. Copies of all current local IRB approval letters and local IRB approved protocols (and CDC IRB approval letters, if applicable) will be required to lift restrictions.

If the proposed research project involves more than one institution and will be conducted in the United States, awardees are expected to use a single Institutional Review Board (sIRB) to conduct the ethical review required by HHS regulations for the Protections of

Human Subjects Research, and include a single IRB plan in the application, unless review by a sIRB would be prohibited by a federal, tribal, or state law, regulation, or policy or a compelling justification based on ethical or human subjects protection issues or other well-justified reasons is provided. Exceptions will be reviewed and approved by CDC in accordance with Department of Health and Human Services (DHHS) Regulations (45 CFR Part 46), or a restriction may be placed on the award. For more information, please contact the scientific/research contact included on this NOFO.

Note: The sIRB requirement applies to participating sites in the United States. Foreign sites participating in CDC-funded, cooperative research studies are not expected to follow the requirement for sIRB.

Awards may be initially issued with restrictions until all information requested can be provided. Generally, funds will not be given for renovation of existing facilities or for purchasing substantial amounts of equipment.

7. Other Submission Requirements and Information

Applications must be submitted electronically following the instructions described in the SF424 (R&R) Application Guide. Paper applications will not be accepted.

For information on how your application will be automatically assembled for review and funding consideration after submission go to: http://grants.nih.gov/grants/ElectronicReceipt/files/Electronic_Multi-project_Application_Image_Assembly.pdf.

Applicants must complete all required registrations before the application due date. Section III. Eligibility Information contains information about registration.

For assistance with your electronic application or for more information on the electronic submission process, visit How to Apply – Application Guide. If you encounter a system issue beyond your control that threatens your ability to complete the submission process on-time, you must follow the Dealing with System Issues guidance. For assistance with application submission, contact the Application Submission Contacts in Section VII.

Important reminders:

All PD(s)/PI(s) and component Project Leads must include their eRA Commons ID in the Credential field of the Senior/Key Person Profile form**.** Failure to register in the Commons and to include a valid PD/PI Commons ID in the credential field will prevent the successful submission of an electronic application to NIH.

The applicant organization must ensure that the unique entity identifier provided on the

application is the same identifier used in the organization's profile in the eRA Commons and for the System for Award Management. Additional information may be found in the SF424 (R&R) Application Guide.

See more tips for avoiding common errors.

Upon receipt, applications will be evaluated for completeness by the CDC Office of Grants Services (OGS) and responsiveness by OGS and the Center, Institute or Office of the CDC. Applications that are incomplete and/or nonresponsive will not be reviewed.

Risk Assessment Questionnaire Requirement
CDC is required to conduct pre-award risk assessments to determine the risk an applicant poses to meeting federal programmatic and administrative requirements by taking into account issues such as financial instability, insufficient management systems, non-compliance with award conditions, the charging of unallowable costs, and inexperience. The risk assessment will include an evaluation of the applicant's CDC Risk Questionnaire, as well as a review of the applicant's history in all available systems; including OMB-designated repositories of government-wide eligibility and financial integrity systems (see 45 CFR 75.205(a)), and other sources of historical information. These systems include, but are not limited to: FAPIIS, including past performance on federal contracts as per Duncan Hunter National Defense Authorization Act of 2009; Do Not Pay list; and System for Award Management (SAM) exclusions.

CDC requires all applicants to complete the Risk Questionnaire, OMB Control Number 0920-1132 annually. This questionnaire, along with supporting documentation must be submitted with your application by the closing date of the Notice of Funding Opportunity Announcement. If your organization has completed CDC's Risk Questionnaire within the past 12 months of the closing date of this NOFO, then you must submit a copy of that questionnaire, or submit a letter signed by the authorized organization representative to include the original submission date, organization's EIN and UEI.

When uploading supporting documentation for the Risk Questionnaire into this application package, clearly label the documents for easy identification of the type of documentation. For example, a copy of Procurement policy submitted in response to the questionnaire may be labeled using the following format: Risk Questionnaire Supporting Documents _ Procurement Policy. **Upload the questionnaire and supporting documents as an attachment in the "12. Other Attachments" section of the "R&R Other Project Information" section of the application.**

Duplication of Efforts
Applicants are responsible for reporting if this application will result in programmatic,

budgetary, or commitment overlap with another application or award (i.e., grant, cooperative agreement, or contract) submitted to another funding source in the same fiscal year. Programmatic overlap occurs when (1) substantially the same project is proposed in more than one application or is submitted to two or more funding sources for review and funding consideration or (2) a specific objective and the project design for accomplishing the objective are the same or closely related in two or more applications or awards, regardless of the funding source. Budgetary overlap occurs when duplicate or equivalent budgetary items (e.g., equipment, salaries) are requested in an application but already are provided by another source. Commitment overlap occurs when an individual's time commitment exceeds 100 percent, whether or not salary support is requested in the application. Overlap, whether programmatic, budgetary, or commitment of an individual's effort greater than 100 percent, is not permitted. Any overlap will be resolved by the CDC with the applicant and the PD/PI prior to award.

Report Submission: The applicant must upload the report under "Other Attachment Forms." The document should be labeled: "Report on Programmatic, Budgetary, and Commitment Overlap."

Application Submission
Applications must be submitted electronically following the instructions described in the SF 424 (R&R) Application Guide. PAPER APPLICATIONS WILL NOT BE ACCEPTED.

Applicants must complete all required registrations before the application due date. Section III. Eligibility Information contains information about registration.

For assistance with your electronic application or for more information on the electronic submission process, visit Applying Electronically.

Important reminders: All Senior/Key Personnel (including Program Directors/Principal Investigators (PD/PIs) must include their eRA Commons ID in the Credential field of the Senior/Key Person Profile Component of the SF 424(R&R) Application Package. Failure to register in the Commons and to include a valid PD/PI Commons ID in the credential field will prevent the successful submission of an electronic application to CDC.

It is important to note that for multi-project applications, this requirement also applies to the individual components of the application and not to just the Overall component.

The applicant organization must ensure that the UEI number it provides on the application is the same number used in the organization's profile in the eRA Commons and for the System for Award Management (SAM). Additional information may be found in the SF424 (R&R) Application Guide.

If the applicant has an FWA number, enter the 8-digit number. Do not enter the letters "FWA" before the number. If a Project/Performance Site is engaged in research involving

human subjects, the applicant organization is responsible for ensuring that the Project/Performance Site operates under appropriate Federal Wide Assurance for the protection of human subjects and complies with 45 CFR Part 46 and other CDC human subject-related policies described in Part II of the SF 424 (R&R) Application Guide and in the HHS Grants Policy Statement.

See more resources to avoid common errors and submitting, tracking, and viewing applications:

- http://grants.nih.gov/grants/ElectronicReceipt/avoiding_errors.htm
- http://grants.nih.gov/grants/ElectronicReceipt/submit_app.htm
- https://era.nih.gov/files/ASSIST_user_guide.pdf
- http://era.nih.gov/erahelp/ASSIST/

Post Submission Materials
Applicants are required to follow the instructions for post-submission materials, as described in the policy. Any instructions provided here are in addition to the instructions in the policy.

Section V. Application Review Information

1. Criteria

Only the review criteria described below will be considered in the review process. As part of the CDC mission and NIOSH mission all applications submitted to the CDC/NIOSH in support of public safety and health research are evaluated for scientific and technical merit through the CDC/NIOSH peer review system.

As part of the initial merit review, all applicants will receive a written summary statement consisting of the following elements:

A summary evaluation of the Overall Center (considering all component Cores and Research Projects)

A separate evaluation of the Planning, Administration, and Evaluation Core

A separate evaluation of the Construction Industry Data and Statistical Core

A separate evaluation of the Communication, Outreach, and Education Core

A separate evaluation of the Research-to-Practice Core

A separate evaluation of each Research Project

Overall Impact - Overall
Reviewers will provide an overall impact score to reflect their assessment of the likelihood for the Center to exert a sustained, powerful influence on the research field(s) involved, in consideration of the following review criteria and additional review criteria (as applicable

for the project proposed).

Scored Review Criteria - Overall

Reviewers will consider each of the review criteria below in the determination of scientific merit and give a separate score for each. An application does not need to be strong in all categories to be judged likely to have major scientific impact. For example, a component that by its nature is not innovative may be essential to advance a field.

Significance

Does the Center address an important problem or a critical barrier to progress in the field? Is the prior research that serves as the key support for the proposed project rigorous? If the aims of the Center are achieved, how will scientific knowledge, technical capability, and/or clinical practice be improved? How will successful completion of the aims change the concepts, methods, technologies, treatments, services, or preventative interventions that drive this field?

Specific to this NOFO

What is the impact of the proposed Center in meeting the national needs for occupational safety and health in the Construction sector? Does the creation or continuation of the Center advance the field of occupational safety and health? Does the application show great potential to advance research translation and research-to-practice in the Construction sector?

For Renewal applications: In addition to the criteria above, has the existing Center made significant contributions to improving health and safety for construction workers as demonstrated by their accomplishments? Is there evidence of progress and impact specific to this program since the previous competitive review? Does the applicant document evidence of outcomes and impacts? Does the applicant provide evidence of past success in meeting the national need for healthy worksites and healthy workers through research, education, and partnership activities?

Investigator(s)

Are the PD(s)/PI(s), collaborators, and other researchers well-suited to the Center? If Early Stage Investigators or those in the early stages of independent careers, do they have appropriate experience and training? If established, have they demonstrated an ongoing record of accomplishments that have advanced their field(s)? If the Center is collaborative or multi-PD/PI, do the investigators have complementary and integrated expertise; are their leadership approach, governance and organizational structure appropriate for the Center?

Specific to this NOFO

Do the Center director and leadership team have appropriate training and experience to lead the Center? Do the leaders/directors demonstrate a knowledge and commitment to construction safety and health?

Innovation

Does the application challenge and seek to shift current research or clinical practice paradigms by utilizing novel theoretical concepts, approaches or methodologies, instrumentation, or interventions? Are the concepts, approaches or methodologies,

instrumentation, or interventions novel to one field of research or novel in a broad sense? Is a refinement, improvement, or new application of theoretical concepts, approaches or methodologies, instrumentation, or interventions proposed?

Specific to this NOFO

Does the application propose new, innovative programs and highly effective approaches to occupational safety and health in the Construction sector? Are emerging hazards or exposures considered? Does the application propose new performance-monitoring processes, evaluation measures or metrics, or reporting methods? Is the proposed use of social media tailored for Construction sector audiences?

Approach

Are the overall strategy, methodology, and analyses well-reasoned and appropriate to accomplish the specific aims of the Center? Have investigators included plans to address weaknesses in the rigor of prior research that serves as the key support for the proposed Center? Have the investigators presented strategies to ensure a robust and unbiased approach, as appropriate for the work proposed? Are potential problems, alternative strategies, and benchmarks for success presented? If the Center is in the early stages of development, will the strategy establish feasibility and will particularly risky aspects be managed? Have the investigators presented adequate plans to address relevant biological variables, such as sex, for studies in vertebrate animals or human subjects?

If the Center involves human subjects and/or NIH-defined clinical research, are the plans to address:

1) the protection of human subjects from research risks, and

2) inclusion (or exclusion) of individuals on the basis of sex/gender, race, and ethnicity, as well as the inclusion or exclusion of individuals of all ages (including children and older adults), justified in terms of the scientific goals and research strategy proposed?

Environment

Will the scientific environment in which the work will be done contribute to the probability of success? Are the institutional support, equipment and other physical resources available to the investigators adequate for the project proposed? Will the project benefit from unique features of the scientific environment, subject populations, or collaborative arrangements?

Specific to this NOFO

Is there evidence of adequate integration and meaningful interdisciplinary or multidisciplinary collaboration among the various cores and projects? Are collaboration and scientific integration with academic and/or research institutions described?

Overall Impact - Individual Cores

Reviewers will provide an overall impact score to reflect their assessment of the likelihood for each core to exert a sustained, powerful influence on the research field(s) involved, in

consideration of the following review criteria and additional review criteria (as applicable for the core proposed).

Scored Review Criteria - Individual Cores

Reviewers will consider each of the review criteria below, as appropriate for each individual component, in the determination of scientific merit and provide an impact score for each core.

Planning, Administration, and Evaluation Core

Reviewers will assign a numerical impact score based on the following criteria:

Significance

Does the project address an important problem or a critical barrier to progress in the field? Is the prior research that serves as the key support for the proposed project rigorous? If the aims of the project are achieved, how will scientific knowledge, technical capability, and/or clinical practice be improved? How will successful completion of the aims change the concepts, methods, technologies, treatments, services, or preventative interventions that drive this field?

Investigator(s)

Are the PD(s)/PI(s), collaborators, and other researchers well-suited to the project? If Early Stage Investigators or those in the early stages of independent careers, do they have appropriate experience and training? If established, have they demonstrated an ongoing record of accomplishments that have advanced their field(s)? If the project is collaborative or multi-PD/PI, do the investigators have complementary and integrated expertise; are their leadership approach, governance and organizational structure appropriate for the project?

Innovation

Does the application challenge and seek to shift current research or clinical practice paradigms by utilizing novel theoretical concepts, approaches or methodologies, instrumentation, or interventions? Are the concepts, approaches or methodologies, instrumentation, or interventions novel to one field of research or novel in a broad sense? Is a refinement, improvement, or new application of theoretical concepts, approaches or methodologies, instrumentation, or interventions proposed?

Approach

Are the overall strategy, methodology, and analyses well-reasoned and appropriate to accomplish the specific aims of the project? Have investigators included plans to address weaknesses in the rigor of prior research that serves as the key support for the proposed project? Have the investigators presented strategies to ensure a robust and unbiased approach, as appropriate for the work proposed? Are potential problems, alternative strategies, and benchmarks for success presented? If the project is in the early stages of development, will the strategy establish feasibility and will particularly risky aspects be managed? Have the investigators presented adequate plans to address relevant biological variables, such as sex, for studies in vertebrate animals or human subjects?

If the project involves human subjects and/or NIH-defined clinical research, are the plans to address:

1) the protection of human subjects from research risks, and

2) inclusion (or exclusion) of individuals on the basis of sex/gender, race, and ethnicity, as well as the

inclusion or exclusion of individuals of all ages (including children and older adults), justified in terms of the scientific goals and research strategy proposed?

Specific to this NOFO

Integration and Collaboration among Cores and Projects: Does the National Construction Center have a clear plan for managing communications, coordination, and collaborations among the Cores and the individual research projects?

Planning and Evaluation Activities: Are the plans for evaluating the research projects and Cores, and if applicable, the track record of evaluation, appropriate? Are the plans for the use of advice from internal and external advisors, and if applicable, the track record of such use, appropriate?

Environment

Will the scientific environment in which the work will be done contribute to the probability of success? Are the institutional support, equipment and other physical resources available to the investigators adequate for the project proposed? Will the project benefit from unique features of the scientific environment, subject populations, or collaborative arrangements?

Specific to this NOFO

Does the plan for the administrative component adequately address how the Center will be managed administratively, including the fiscal and data operations? Are the communication aspects of the Center facilitated by this Core adequately addressed, particularly when there is more than one institution involved?

Construction Industry Data and Statistical Core

Reviewers will assign a numerical impact score based on the following.

Significance

Does the project address an important problem or a critical barrier to progress in the field? Is the prior research that serves as the key support for the proposed project rigorous? If the aims of the project are achieved, how will scientific knowledge, technical capability, and/or clinical practice be improved? How will successful completion of the aims change the concepts, methods, technologies, treatments, services, or preventative interventions that drive this field?

Investigator(s)

Are the PD(s)/PI(s), collaborators, and other researchers well-suited to the project? If Early Stage Investigators or those in the early stages of independent careers, do they have appropriate experience and training? If established, have they demonstrated an ongoing record of accomplishments that have advanced their field(s)? If the project is collaborative or multi-PD/PI, do the investigators have complementary and integrated expertise; are their leadership approach, governance and organizational structure appropriate for the project?

Innovation

Does the application challenge and seek to shift current research or clinical practice paradigms by utilizing novel theoretical concepts, approaches or methodologies, instrumentation, or interventions? Are the concepts, approaches or methodologies, instrumentation, or interventions novel to one field of research or novel in a broad sense? Is a refinement, improvement, or new application of theoretical

concepts, approaches or methodologies, instrumentation, or interventions proposed?

Approach

Are the overall strategy, methodology, and analyses well-reasoned and appropriate to accomplish the specific aims of the project? Have investigators included plans to address weaknesses in the rigor of prior research that serves as the key support for the proposed project? Have the investigators presented strategies to ensure a robust and unbiased approach, as appropriate for the work proposed? Are potential problems, alternative strategies, and benchmarks for success presented? If the project is in the early stages of development, will the strategy establish feasibility and will particularly risky aspects be managed? Have the investigators presented adequate plans to address relevant biological variables, such as sex, for studies in vertebrate animals or human subjects?

If the project involves human subjects and/or NIH-defined clinical research, are the plans to address:

1) the protection of human subjects from research risks, and

2) inclusion (or exclusion) of individuals on the basis of sex/gender, race, and ethnicity, as well as the inclusion or exclusion of individuals of all ages (including children and older adults), justified in terms of the scientific goals and research strategy proposed?

Specific to this NOFO

Is there a systematic approach proposed to describe how the Core acquires, analyzes, interprets, and disseminates data, indicators, and changes/trends for the construction sector? Are appropriate approaches described for assessing and ensuring data quality?

Environment

Will the scientific environment in which the work will be done contribute to the probability of success? Are the institutional support, equipment and other physical resources available to the investigators adequate for the project proposed? Will the project benefit from unique features of the scientific environment, subject populations, or collaborative arrangements?

Specific to this NOFO

Are data and statistical activities coordinated across the Center?

Communication, Outreach, and Education Core

Reviewers will assign a numerical impact score based on the following.

Significance

Does the project address an important problem or a critical barrier to progress in the field? Is the prior research that serves as the key support for the proposed project rigorous? If the aims of the project are achieved, how will scientific knowledge, technical capability, and/or clinical practice be improved? How will successful completion of the aims change the concepts, methods, technologies, treatments, services, or preventative interventions that drive this field?

Investigator(s)

Are the PD(s)/PI(s), collaborators, and other researchers well-suited to the project? If Early Stage Investigators or those in the early stages of independent careers, do they have appropriate experience

and training? If established, have they demonstrated an ongoing record of accomplishments that have advanced their field(s)? If the project is collaborative or multi-PD/PI, do the investigators have complementary and integrated expertise; are their leadership approach, governance and organizational structure appropriate for the project?

Innovation

Does the application challenge and seek to shift current research or clinical practice paradigms by utilizing novel theoretical concepts, approaches or methodologies, instrumentation, or interventions? Are the concepts, approaches or methodologies, instrumentation, or interventions novel to one field of research or novel in a broad sense? Is a refinement, improvement, or new application of theoretical concepts, approaches or methodologies, instrumentation, or interventions proposed?

Approach

Are the overall strategy, methodology, and analyses well-reasoned and appropriate to accomplish the specific aims of the project? Have investigators included plans to address weaknesses in the rigor of prior research that serves as the key support for the proposed project? Have the investigators presented strategies to ensure a robust and unbiased approach, as appropriate for the work proposed? Are potential problems, alternative strategies, and benchmarks for success presented? If the project is in the early stages of development, will the strategy establish feasibility and will particularly risky aspects be managed? Have the investigators presented adequate plans to address relevant biological variables, such as sex, for studies in vertebrate animals or human subjects?

If the project involves human subjects and/or NIH-defined clinical research, are the plans to address:

1) the protection of human subjects from research risks, and

2) inclusion (or exclusion) of individuals on the basis of sex/gender, race, and ethnicity, as well as the inclusion or exclusion of individuals of all ages (including children and older adults), justified in terms of the scientific goals and research strategy proposed?

Specific to this NOFO

Is a systematic approach proposed to develop partnerships with diverse groups for widely disseminating research outputs, outcomes, and impacts? Are appropriate dissemination channels proposed for the respective audiences?

Environment

Will the scientific environment in which the work will be done contribute to the probability of success? Are the institutional support, equipment and other physical resources available to the investigators adequate for the project proposed? Will the project benefit from unique features of the scientific environment, subject populations, or collaborative arrangements?

Specific to this NOFO

Are communication, outreach, and education efforts coordinated across the Center?

Research-to-Practice Core

Reviewers will assign a numerical impact score based on the following:

Significance

Does the project address an important problem or a critical barrier to progress in the field? Is the prior research that serves as the key support for the proposed project rigorous? If the aims of the project are

achieved, how will scientific knowledge, technical capability, and/or clinical practice be improved? How will successful completion of the aims change the concepts, methods, technologies, treatments, services, or preventative interventions that drive this field?

Investigator(s)

Are the PD(s)/PI(s), collaborators, and other researchers well-suited to the project? If Early Stage Investigators or those in the early stages of independent careers, do they have appropriate experience and training? If established, have they demonstrated an ongoing record of accomplishments that have advanced their field(s)? If the project is collaborative or multi-PD/PI, do the investigators have complementary and integrated expertise; are their leadership approach, governance and organizational structure appropriate for the project?

Innovation

Does the application challenge and seek to shift current research or clinical practice paradigms by utilizing novel theoretical concepts, approaches or methodologies, instrumentation, or interventions? Are the concepts, approaches or methodologies, instrumentation, or interventions novel to one field of research or novel in a broad sense? Is a refinement, improvement, or new application of theoretical concepts, approaches or methodologies, instrumentation, or interventions proposed?

Approach

Are the overall strategy, methodology, and analyses well-reasoned and appropriate to accomplish the specific aims of the project? Have investigators included plans to address weaknesses in the rigor of prior research that serves as the key support for the proposed project? Have the investigators presented strategies to ensure a robust and unbiased approach, as appropriate for the work proposed? Are potential problems, alternative strategies, and benchmarks for success presented? If the project is in the early stages of development, will the strategy establish feasibility and will particularly risky aspects be managed? Have the investigators presented adequate plans to address relevant biological variables, such as sex, for studies in vertebrate animals or human subjects?

If the project involves human subjects and/or NIH-defined clinical research, are the plans to address:

1) the protection of human subjects from research risks, and

2) inclusion (or exclusion) of individuals on the basis of sex/gender, race, and ethnicity, as well as the inclusion or exclusion of individuals of all ages (including children and older adults), justified in terms of the scientific goals and research strategy proposed?

Specific to this NOFO

Is there a systematic approach proposed to facilitate moving interventions, practices, and technologies that result from research into practice in the Construction sector?

Environment

Will the scientific environment in which the work will be done contribute to the probability of success? Are the institutional support, equipment and other physical resources available to the investigators adequate for the project proposed? Will the project benefit from unique features of the scientific environment, subject populations, or collaborative arrangements?

Specific to this NOFO

Are research-to-practice activities coordinated across the Center?

Overall Impact - Individual Research Projects

Reviewers will provide an overall impact score to reflect their assessment of the likelihood for each project to exert a sustained, powerful influence on the research field(s) involved, in consideration of the following review criteria and additional review criteria (as applicable for the project proposed).

Scored Review Criteria - Individual Research Projects

Reviewers will consider each of the review criteria below in the determination of scientific merit, and will give a separate score for each. An application does not need to be strong in all categories to be judged likely to have major scientific impact. For example, a project that by its very nature is not innovative may be essential to advance a field.

Significance

Does the project address an important problem or a critical barrier to progress in the field? Is the prior research that serves as the key support for the proposed project rigorous? If the aims of the project are achieved, how will scientific knowledge, technical capability, and/or clinical practice be improved? How will successful completion of the aims change the concepts, methods, technologies, treatments, services, or preventative interventions that drive this field?

Specific to this NOFO

Does the project address the burden, need, and impact (BNI) of the occupational exposures and hazards that are the focus of the proposed research? Does the applicant fully justify and provide data to describe the burden of the problem(s) being addressed? Is the project likely to have an impact in meeting local, regional, or national occupational safety and health needs through effective research, intervention, implementation, outreach, education, or partnership activities? Are appropriate impacts identified?

In addition, for projects involving clinical trials

Are the scientific rationale and need for a clinical trial to test the proposed hypothesis or intervention well supported by preliminary data, clinical and/or preclinical studies, or information in the literature or knowledge of biological mechanisms? For trials focusing on clinical or public health endpoints, is this clinical trial necessary for testing the safety, efficacy or effectiveness of an intervention that could lead to a change in clinical practice, community behaviors or health care policy? For trials focusing on mechanistic, behavioral, physiological, biochemical, or other biomedical endpoints, is this trial needed to advance scientific understanding?

Investigator(s)

Are the PD(s)/PI(s), collaborators, and other researchers well-suited to the project? If Early Stage Investigators or those in the early stages of independent careers, do they have appropriate experience and training? If established, have they demonstrated an ongoing record of accomplishments that have advanced their field(s)? If the project is collaborative or multi-PD/PI, do the investigators have complementary and integrated expertise; are their leadership approach, governance and organizational structure appropriate for the project?

In addition, for applications involving clinical trials

With regard to the proposed leadership for the project, do the PD/PI(s) and key personnel have the

expertise, experience, and ability to organize, manage and implement the proposed clinical trial and meet milestones and timelines? Do they have appropriate expertise in study coordination, data management and statistics? For a multicenter trial, is the organizational structure appropriate and does the application identify a core of potential center investigators and staffing for a coordinating center?

Innovation

Does the application challenge and seek to shift current research or clinical practice paradigms by utilizing novel theoretical concepts, approaches or methodologies, instrumentation, or interventions? Are the concepts, approaches or methodologies, instrumentation, or interventions novel to one field of research or novel in a broad sense? Is a refinement, improvement, or new application of theoretical concepts, approaches or methodologies, instrumentation, or interventions proposed?

In addition, for projects involving clinical trials

Does the design/research plan include innovative elements, as appropriate, that enhance its sensitivity, potential for information, or potential to advance scientific knowledge or clinical practice?

Approach

Are the overall strategy, methodology, and analyses well-reasoned and appropriate to accomplish the specific aims of the project? Have investigators included plans to address weaknesses in the rigor of prior research that serves as the key support for the proposed project? Have the investigators presented strategies to ensure a robust and unbiased approach, as appropriate for the work proposed? Are potential problems, alternative strategies, and benchmarks for success presented? If the project is in the early stages of development, will the strategy establish feasibility and will particularly risky aspects be managed? Have the investigators presented adequate plans to address relevant biological variables, such as sex, for studies in vertebrate animals or human subjects?

If the project involves human subjects and/or NIH-defined clinical research, are the plans to address:

1) the protection of human subjects from research risks, and

2) inclusion (or exclusion) of individuals on the basis of sex/gender, race, and ethnicity, as well as the inclusion or exclusion of individuals of all ages (including children and older adults), justified in terms of the scientific goals and research strategy proposed?

In addition, for projects involving clinical trials

Does the application adequately address the following, if applicable:

Study Design

Is the study design justified and appropriate to address primary and secondary outcome variable(s)/endpoints that will be clear, informative and relevant to the hypothesis being tested? Is the scientific rationale/premise of the study based on previously well-designed preclinical and/or clinical research? Given the methods used to assign participants and deliver interventions, is the study design adequately powered to answer the research question(s), test the proposed hypothesis/hypotheses, and provide interpretable results? Is the trial appropriately designed to conduct the research efficiently? Are the study populations (size, gender, age, and demographic group), proposed intervention arms/dose, and duration of the trial, appropriate and well justified?

Are potential ethical issues adequately addressed? Is the process for obtaining informed consent or assent appropriate? Is the eligible population available? Are the plans for recruitment outreach, enrollment, retention, handling dropouts, missed visits, and losses to follow-up appropriate to ensure

robust data collection? Are the planned recruitment timelines feasible and is the plan to monitor accrual adequate? Has the need for randomization (or not), masking (if appropriate), controls, and inclusion/exclusion criteria been addressed? Are differences addressed, if applicable, in the intervention effect due to sex/gender and race/ethnicity?

Are the plans to standardize, assure quality of, and monitor adherence to, the trial protocol and data collection or distribution guidelines appropriate? Is there a plan to obtain required study agent(s)? Does the application propose to use existing available resources, as applicable?

Data Management and Statistical Analysis

Are planned analyses and statistical approach appropriate for the proposed study design and methods used to assign participants and deliver interventions? Are the procedures for data management and quality control of data adequate at clinical site(s) or at center laboratories, as applicable? Have the methods for standardization of procedures for data management to assess the effect of the intervention and quality control been addressed? Is there a plan to complete data analysis within the proposed period of the award?

Environment

Will the scientific environment in which the work will be done contribute to the probability of success? Are the institutional support, equipment and other physical resources available to the investigators adequate for the project proposed? Will the project benefit from unique features of the scientific environment, subject populations, or collaborative arrangements?

Specific to this NOFO

Are collaboration and scientific integration with academic and/or research institutions described for project proposals?

In addition, for projects involving clinical trials

If proposed, are the proposed administrative, data coordinating, enrollment and laboratory/testing centers, appropriate for the trial proposed? Does the application adequately address the capability and ability to conduct the trial at the proposed site(s) or centers? Are the plans to add or drop enrollment centers, as needed, appropriate?

For a multi-sites/center, is there evidence of the ability of the individual site or center to: (1) enroll the proposed numbers; (2) adhere to the protocol; (3) collect and transmit data in using secure, accurate, and timely methods; and, (4) operate within the proposed organizational structure?

Additional Review Criteria - Overall, Cores, and Research Projects

As applicable for the components proposed, reviewers will evaluate the following additional items while determining scientific and technical merit, and in providing an overall impact score, but will not give separate scores for these items.

Protections for Human Subjects

For research that involves human subjects but does not involve one of the categories of research that are exempt under 45 CFR Part 46, the committee will evaluate the justification for involvement of human subjects and the proposed protections from research risk relating to their participation according to the following five review criteria: 1) risk to subjects, 2) adequacy of protection against risks, 3) potential benefits to the

subjects and others, 4) importance of the knowledge to be gained, and 5) data and safety monitoring for clinical trials.

For research that involves human subjects and meets the criteria for one or more of the six categories of research that are exempt under 45 CFR Part 46, the committee will evaluate: 1) the justification for the exemption, 2) human subjects involvement and characteristics, and 3) sources of materials. For additional information on review of the Human Subjects section, please refer to the Guidelines for the Review of Human Subjects or HHS/CDC Requirements under AR-1 Human Subjects Requirements.

If your proposed research involves the use of human data and/or biological specimens, you must provide a justification for your claim that no human subjects are involved in the Protection of Human Subjects section of the Research Plan.

Inclusion of Women, Minorities, and Individuals Across the Lifespan

When the proposed project involves human subjects and/or NIH-defined clinical research, the committee will evaluate the proposed plans for the inclusion (or exclusion) of individuals on the basis of sex/gender, race, and ethnicity, as well as the inclusion (or exclusion) of individuals of all ages (including children and older adults) to determine if it is justified in terms of the scientific goals and research strategy proposed. For additional information on review of the Inclusion section, please refer to the Guidelines for the Review of Inclusion in Clinical Research, Policy for Inclusion of Women and Racial and Ethnic Minorities in Research, and the policy on the Inclusion of Persons Under the Age of 21 in Research.

Vertebrate Animals

The committee will evaluate the involvement of live vertebrate animals as part of the scientific assessment according to the following four points: 1) proposed use of the animals, and species, strains, ages, sex, and numbers to be used; 2) justifications for the use of animals and for the appropriateness of the species and numbers proposed; 3) procedures for limiting discomfort, distress, pain and injury to that which is unavoidable in the conduct of scientifically sound research including the use of analgesic, anesthetic, and tranquilizing drugs and/or comfortable restraining devices; and 4) methods of euthanasia and reason for selection if not consistent with the AVMA Guidelines on Euthanasia. For additional information on review of the Vertebrate Animals section, please refer to the Worksheet for Review of the Vertebrate Animal Section.

Biohazards

Reviewers will assess whether materials or procedures proposed are potentially hazardous to research personnel and/or the environment, and if needed, determine whether adequate protection is proposed.

Dual Use Research of Concern

Reviewers will identify whether the project involves one of the agents or toxins described in the US Government Policy for the Institutional Oversight of Life Sciences Dual Use Research of Concern, and, if so, whether the applicant has identified an IRE to assess the project for DURC potential and develop mitigation strategies if needed.

For more information about this Policy and other policies regarding dual use research of concern, visit the U.S. Government Science, Safety, Security (S3) website at: http://www.phe.gov/s3/dualuse. Tools and

guidance for assessing DURC potential may be found at: http://www.phe.gov/s3/dualuse/Documents/durc-companion-guide.pdf and http://www.phe.gov/s3/dualuse/Pages/companion-guide.aspx.

Resubmissions
For Resubmissions, the committee will evaluate the application as now presented, taking into consideration the responses to comments from the previous scientific review group and changes made to the project.

Renewals
For Renewals, the committee will consider the progress made in the last funding period.

Revisions
For Revisions, the committee will consider the appropriateness of the proposed expansion of the scope of the project. If the Revision application relates to a specific line of investigation presented in the original application that was not recommended for approval by the committee, then the committee will consider whether the responses to comments from the previous scientific review group are adequate and whether substantial changes are clearly evident.

Additional Review Considerations - Overall, Cores, and Research Projects
As applicable for the component proposed, reviewers will consider each of the following items, but will not give scores for these items, and should not consider them in providing an overall impact score.

Outputs and Outcomes

Reviewers will assess whether the applicant has provided sufficient information about the expected outputs and outcomes of the proposal and how the research, outreach, and other activities of the Center and its components will promote safer and healthier construction work environments and impact on workers' health and well-being.

Applications from Foreign Organizations
Not Applicable. Applications from foreign organizations are not allowed.

Select Agent Research
Reviewers will assess the information provided in this section of the application, including 1) the Select Agent(s) to be used in the proposed research, 2) the registration status of all entities where Select Agent(s) will be used, 3) the procedures that will be used to monitor possession use and transfer of Select Agent(s), and 4) plans for appropriate biosafety, biocontainment, and security of the Select Agent(s).

Resource Sharing Plans

Reviewers will comment on whether the Resource Sharing Plan(s) (e.g., Sharing Model Organisms) or the rationale for not sharing the resources, is reasonable.

HHS/CDC policy requires that recipients of grant awards make research resources and data readily available for research purposes to qualified individuals within the scientific community after publication. Please see AR-25.

The reasonableness of the resource sharing plan, or the rationale for not sharing research data, will be assessed by the reviewers. The reviewers will not, however, factor the proposed plan into the determination of scientific merit or the impact score.

New Additional requirement: CDC requires recipients for projects and programs that involve data collection or generation of data with federal funds to develop and submit a **Data Management Plan (DMP)** for each collection of public health data.

Investigators responding to this NOFO **should include a detailed DMP in the Resource Sharing Plan(s) section of the PHS 398 Research Plan Component** of the application. The AR-25 outlines the components of a DMP and provides additional information for investigators regarding the requirements for data accessibility, storage, and preservation.

The DMP should be developed during the project planning phase prior to the initiation of collecting or generating public health data and will be submitted with the application. The submitted DMP will be evaluated for completeness and quality at the time of submission.

The DMP should include, at a minimum, a description of the following:

• A description of the data to be collected or generated in the proposed project;

• Standards to be used for the collected or generated data;

• Mechanisms for, or limitations to, providing access to and sharing of the data (include a description of provisions for the protection of privacy, confidentiality, security, intellectual property, or other rights - this section should address access to identifiable and de-identified data);

• Statement of the use of data standards that ensure all released data have appropriate documentation that describes the method of collection, what the data represent, and potential limitations for use; and

• Plans for archiving and long-term preservation of the data, or explaining why long-term preservation and access are not justified (this section should address archiving and preservation of identifiable and de-identified data).

Applications submitted without the required DMP may be deemed ineligible for award unless submission of DMP is deferred to a later period depending on the type of award, in which case, funding restrictions may be imposed pending submission and evaluation.

CDC OMB-approved templates may be used (e.g., NCCDPHP template).

Authentication of Key Biological and/or Chemical Resources

For projects involving key biological and/or chemical resources, reviewers will comment on the brief plans proposed for identifying and ensuring the validity of those resources.

Budget and Period of Support

Reviewers will consider whether the budget and the requested period of support are fully justified and reasonable in relation to the proposed research.

The applicant can obtain budget preparation guidance for completing a detailed justified budget on the

CDC website, at the following Internet address: https://www.cdc.gov/grants/applying/application-resources.html. Following this guidance will also facilitate the review and approval of the budget request of applications selected for award.

The budget can include both direct costs and indirect costs as allowed. Indirect costs could include the cost of collecting, managing, sharing and preserving data.

If requesting indirect costs in the budget based on a federally negotiated rate, a copy of the indirect cost rate agreement is required. Include a copy of the current negotiated federal indirect cost rate agreement or cost allocation plan approval letter.

2. Review and Selection Process

Applications will be evaluated for scientific and technical merit by (an) appropriate Scientific Review Group(s), convened by CDC/NIOSH in accordance with CDC peer review policy and procedures, using the stated review criteria. Assignment to a Scientific Review Group will be shown in the eRA Commons.

As part of the scientific peer review, all applications:

· May undergo a selection process in which only those applications deemed to have the highest scientific and technical merit (generally the top half of applications under review) will be discussed and assigned an overall impact score.

· Will receive a written critique.

Appeals of initial peer review will not be accepted for applications submitted in response to this NOFO.

Applications will be assigned to NIOSH. Applications will compete for available funds with all other recommended applications submitted in response to this NOFO. Following initial peer review, recommended applications will receive a second level of review by the NIOSH Secondary Review Committee. The following will be considered in making funding decisions:

· Scientific and technical merit of the proposed project as determined by scientific peer review.

· Availability of funds.

· Relevance of the proposed project to the NIOSH Construction Program priorities.

· Proposed or current strength of partnerships (and delivery capacity potential) with NIOSH programs (commensurate with a cooperative agreement) and other agencies, in terms of likelihood of new synergy and impact.

· Commitment of the applicant institution to collaborative efforts.

· Collaborative interaction with NIOSH researchers and subject matter experts.

· Commitment of the applicant institution to diversity, equity, inclusion, and accessibility.

Review of Risk Posed by Applicants

Prior to making a Federal award, CDC is required by 31 U.S.C. 3321 and 41 U.S.C. 2313 to review information available through any OMB-designated repositories of government-wide eligibility qualification or financial integrity information as appropriate. See also suspension and debarment requirements at 2 CFR parts 180 and 376.

In accordance with 41 U.S.C. 2313, CDC is required to review the non-public segment of the OMB-designated integrity and performance system accessible through SAM (currently the Federal Recipient Performance and Integrity Information System (FAPIIS)) prior to making a Federal award where the Federal share is expected to exceed the simplified acquisition threshold, defined in 41 U.S.C. 134, over the period of performance. At a minimum, the information in the system for a prior Federal award recipient must demonstrate a satisfactory record of executing programs or activities under Federal grants, cooperative agreements, or procurement awards, and integrity and business ethics. CDC may make a Federal award to a recipient who does not fully meet these standards if it is determined that the information is not relevant to the current Federal award under consideration or there are specific conditions that can appropriately mitigate the effects of the non-Federal entity's risk in accordance with 45 CFR § 75.207.

CDC’s framework for evaluating the risks posed by an applicant may incorporate results of the evaluation of the applicant's eligibility or the quality of its application. If it is determined that a federal award will be made, special conditions that correspond to the degree of risk assessed may be applied to the Federal award. In evaluating risks posed by applicants, CDC will use a risk-based approach and may consider any items such as the following:

· Financial stability;

· Quality of management systems and ability to meet the management standards prescribed in this part;

· History of performance. The applicant's record in managing Federal awards, if it is a prior recipient of Federal awards, including timeliness of compliance with applicable reporting requirements, conformance to the terms and conditions of previous Federal awards, and if applicable, the extent to which any previously awarded amounts will be expended prior to future awards;

· Reports and findings from audits performed under subpart F 45 CFR Part 75 or the reports and findings of any other available audits; and

· The applicant's ability to effectively implement statutory, regulatory, or other requirements imposed on non-Federal entities.

CDC must comply with the guidelines on government-wide suspension and debarment in 2 CFR Part 180 and require non-Federal entities to comply with these provisions. These provisions restrict Federal awards, subawards and contracts with certain parties that are

debarred, suspended or otherwise excluded from or ineligible for participation in Federal programs or activities.

3. Anticipated Announcement and Award Dates

After the peer review of the application is completed, the PD/PI will be able to access his or her Summary Statement (written critique) via the eRA Commons. Refer to Part 1 for dates for peer review, advisory council review, and earliest start date.

Information regarding the disposition of applications is available in the HHS Grants Policy Statement.

Section VI. Award Administration Information

1. Award Notices

Any application awarded in response to this NOFO will be subject to the UEI, SAM Registration and Transparency Act requirements. If the application is under consideration for funding, NIOSH will request "just-in-time" information from the applicant as described in the HHS Grants Policy Statement.

PLEASE NOTE: Effective April 4, 2022, applicants must have a Unique Entity Identifier (UEI) at the time of application submission. The UEI is generated as part of SAM.gov registration. Current SAM.gov registrants have already been assigned their UEI and can view it in SAM.gov and Grants.gov. Additional information is available on the GSA website, SAM.gov, and Grants.gov-Finding the UEI.

A formal notification in the form of a Notice of Award (NoA) will be provided to the applicant organization for successful applications. The NoA signed by the grants management officer is the authorizing document and will be sent via email to the recipient’s business official.

Recipients must comply with any funding restrictions described in Section IV.6. Funding Restrictions. Selection of an application for award is not an authorization to begin performance. Any costs incurred before receipt of the NoA are at the recipient's risk. These costs may be reimbursed only to the extent considered allowable pre-award costs.

Any application awarded in response to this NOFO will be subject to terms and conditions found on the CDC Office of Financial Resources website. This includes any recent legislation and policy applicable to awards that is highlighted on this website.

Diversity Supplements: NIOSH supports efforts to enhance diversity of the research workforce through recruitment and support for students, post-doctorates, and eligible investigators from diverse backgrounds and groups under-represented in OSH research. To help accomplish this, supplemental funding will be considered after an application is awarded. Please refer to PA-23-189 for information or contact the NIOSH Scientific Program Official (SPO) assigned to this NOFO. Diversity supplements are contingent

upon administrative review and availability of funds.

2. Administrative and National Policy Requirements

All HHS/CDC grant and cooperative agreement awards include the HHS Grants Policy Statement as part of the NoA. For these terms of award, see the HHS Grants Policy Statement and CDC Administrative Requirements (policies) found on the CDC Office of Financial Resources, Grant, webpage, including of note, but not limited to:

- Federalwide Research Terms and Conditions
- Prohibition on Certain Telecommunications and Video Surveillance Services or Equipment
- Acknowledgment of Federal Funding

If a recipient is successful and receives a Notice of Award, in accepting the award, the recipient agrees that any activities under the award are subject to all provisions currently in effect or implemented during the period of the award, other Department regulations and policies in effect at the time of the award, and applicable statutory provisions.

Should the applicant organization successfully compete for an award, recipients of federal financial assistance (FFA) from HHS will be required to complete an HHS Assurance of Compliance form (HHS 690) in which the recipient agrees, as a condition of receiving the grant, to administer programs in compliance with federal civil rights laws that prohibit discrimination on the basis of race, color, national origin, age, sex and disability, and agreeing to comply with federal conscience laws, where applicable. This includes ensuring that entities take meaningful steps to provide meaningful access to persons with limited English proficiency; and ensuring effective communication with persons with disabilities. Where applicable, Title XI and Section 1557 prohibit discrimination on the basis of sexual orientation, and gender identity, The HHS Office for Civil Rights provides guidance on complying with civil rights laws enforced by HHS. See Provider Obligations and HHS Nondiscrimination Notice.

HHS recognizes that research projects are often limited in scope for many reasons that are nondiscriminatory, such as the principal investigator's scientific interest, funding limitations, recruitment requirements, and other considerations. Thus, criteria in research protocols that target or exclude certain populations are warranted where nondiscriminatory justifications establish that such criteria are appropriate with respect to the health or safety of the subjects, the scientific study design, or the purpose of the research. For additional guidance regarding how the provisions apply to NIH grant programs, please contact the Scientific/Research Contact that is identified in Section VII under Agency Contacts of this NOFO.

- For guidance on meeting the legal obligation to take reasonable steps to ensure meaningful access to programs or activities by limited English proficient individuals see Fact Sheet on

Guidance and https://www.lep.gov.

· For information on an institution's specific legal obligations for serving qualified individuals with disabilities, including reasonable accommodations and making services accessible to them, see Disability Information page.

· HHS-funded health and education programs must be administered in an environment free of sexual harassment, see Discrimination on the Basis of Sex page.

· For guidance on administering your project in compliance with applicable federal religious nondiscrimination laws and applicable federal conscience protection and associated anti-discrimination laws, see Conscience Protections page and Religious Freedom page.

Please contact the HHS Office for Civil Rights for more information about obligations and prohibitions under federal civil rights laws or call 1-800-368-1019 or TDD 1-800-537-7697.

In accordance with the statutory provisions contained in Section 872 of the Duncan Hunter National Defense Authorization Act of Fiscal Year 2009 (Public Law 110-417), CDC awards will be subject to the Federal Awardee Performance and Integrity Information System (FAPIIS) requirements. FAPIIS requires Federal award making officials to review and consider information about an applicant in the designated integrity and performance system (currently FAPIIS) prior to making an award. An applicant, at its option, may review information in the designated integrity and performance systems accessible through FAPIIS and comment on any information about itself that a Federal agency previously entered and is currently in FAPIIS. The Federal awarding agency will consider any comments by the applicant, in addition to other information in FAPIIS, in making a judgement about the applicant's integrity, business ethics, and record of performance under Federal awards when completing the review of risk posed by applicants as described in 45 CFR Part 75.205 and 2 CFR Part 200.206 "Federal awarding agency review of risk posed by applicants." This provision will apply to all CDC grants and cooperative agreements except fellowships.

Additional Requirements (ARs)

ARs outline the administrative requirements found in 45 CFR Part 75, the HHS Grants Policy Statement, and other requirements as mandated by statute or CDC policy. Recipients must comply with administrative and national policy requirements as appropriate. For more information on the Code of Federal Regulations, visit the National Archives and Records Administration.

Information on additional requirements that apply to this NOFO can be found at the following CDC website https://www.cdc.gov/grants/additional-requirements/.

Generally applicable ARs:

AR-1: Human Subjects Requirements

AR-2: Requirements for Inclusion of Women and Racial and Ethnic Minorities in Research

AR-3: Animal Subjects Requirements

AR-9: Paperwork Reduction Act Requirements

AR-10: Smoke-Free Workplace Requirements

AR-11: Healthy People 2030

AR-12: Lobbying Restrictions

AR-13: Prohibition on Use of CDC Funds for Certain Gun Control Activities

AR-14: Accounting System Requirements

AR-16: Security Clearance Requirement

AR-21: Small, Minority, and Women-Owned Business

AR-22: Research Integrity

AR-24: Health Insurance Portability and Accountability Act Requirements

AR-25: Data Management and Access

AR-26: National Historic Preservation Act of 1966

AR-28: Inclusion of Persons Under the Age of 21 in Research

AR-29: Compliance with EO13513, “Federal Leadership on Reducing Text Messaging while Driving,” October 1, 2009

AR-30: Compliance with Section 508 of the Rehabilitation Act of 1973

AR-31: Research Definition

AR-32: Appropriations Act, General Provisions

AR-33: United States Government Policy for Institutional Oversight of Life Sciences Dual Use Research of Concern

AR-36: Certificates of Confidentiality

AR-37: Prohibition on certain telecommunications and surveillance services or equipment for all awards issued on or after August 13, 2020

Organization specific ARs:

AR-8: Public Health System Reporting Requirements

AR-15: Proof of Non-profit Status

AR-23: Compliance with 45 CFR Part 87

Additional Policy Requirements

The following are additional policy requirements relevant to this NOFO.

HHS Policy on Promoting Efficient Spending: Use of Appropriated Funds for Conferences and Meetings, Food, Promotional Items and Printing Publications

This policy supports the Executive Order on Promoting Efficient Spending (EO 13589), the Executive Order on Delivering an Efficient, Effective, and Accountable Government (EO 13576) and the Office of Management and Budget Memorandum on Eliminating Excess Conference Spending and Promoting Efficiency in Government (M-35-11). This policy applies to all new obligations and all funds appropriated by Congress. For more information, visit the HHS Policy on Promoting Efficient Spending website.

Federal Funding Accountability and Transparency Act of 2006

Funding Accountability and Transparency Act of 2006 (FFATA), Public Law 109–282, as amended by section 6202 of Public Law 110–252, requires full disclosure of all entities and organizations receiving Federal funds including grants, contracts, loans and other assistance and payments through a single, publicly accessible website, http://www.usaspending.gov/. For the full text of the requirements, please review the following website: https://www.fsrs.gov/.

Plain Writing Act

The Plain Writing Act of 2010, Public Law 111-274 was signed into law on October 13, 2010. The law requires that federal agencies use "clear Government communication that the public can understand and use" and requires the federal government to write all new publications, forms, and publicly distributed documents in a "clear, concise, well-organized" manner. For more information on this law, go to: https://plainlanguage.gov/law/.

Employee Whistleblower Rights and Protections

All recipients of an award under this NOFO will be subject to a term and condition that applies the requirements set out in 41 U.S.C. § 4712, “Enhancement of contractor protection from reprisal for disclosure of certain information” and 48 Code of Federal Regulations (CFR) section 3.9 to the award, which includes a requirement that recipients and subrecipients inform employees in writing (in the predominant native language of the workforce) of employee whistleblower rights and protections under 41 U.S.C. § 4712. For more information see: https://oig.hhs.gov/fraud/whistleblower/.

Copyright Interests Provision

This provision is intended to ensure that the public has access to the results and accomplishments of public health activities funded by CDC. Pursuant to applicable grant

regulations and CDC's Public Access Policy, Recipient agrees to submit into the National Institutes of Health (NIH) Manuscript Submission (NIHMS) system an electronic version of the final, peer-reviewed manuscript of any such work developed under this award upon acceptance for publication, to be made publicly available no later than 12 months after the official date of publication. Also, at the time of submission, Recipient and/or the Recipient's submitting author must specify the date the final manuscript will be publicly accessible through PubMed Central (PMC). Recipient and/or Recipient's submitting author must also post the manuscript through PMC within twelve (12) months of the publisher's official date of final publication; however, the author is strongly encouraged to make the subject manuscript available as soon as possible. The recipient must obtain prior approval from the CDC for any exception to this provision.

The author's final, peer-reviewed manuscript is defined as the final version accepted for journal publication and includes all modifications from the publishing peer review process, and all graphics and supplemental material associated with the article. Recipient and its submitting authors working under this award are responsible for ensuring that any publishing or copyright agreements concerning submitted articles reserve adequate right to fully comply with this provision and the license reserved by CDC. The manuscript will be hosted in both PMC and the CDC Stacks institutional repository system. In progress reports for this award, recipient must identify publications subject to the CDC Public Access Policy by using the applicable NIHMS identification number for up to three (3) months after the publication date and the PubMed Central identification number (PMCID) thereafter.

Language Access for Persons with Limited English Proficiency

Recipients of federal financial assistance from HHS must administer their programs in compliance with federal civil rights law. This means that recipients of HHS funds must ensure equal access to their programs without regard to a person's race, color, national origin, disability, age and, in some circumstances, sex and religion. This includes ensuring your programs are accessible to persons with limited English proficiency. Recipients of federal financial assistance must take reasonable steps to provide meaningful access to their programs by persons with limited English proficiency.

Dual Use Research of Concern

On September 24, 2014, the US Government Policy for the Institutional Oversight of Life Sciences Dual Use Research of Concern was released. Recipients (foreign and domestic) receiving CDC funding on or after September 24, 2015 are subject to this policy. Research funded by CDC, involving the agents or toxins named in the policy, must be reviewed to determine if it involves one or more of the listed experimental effects and if so, whether it meets the definition of DURC. This review must be completed by an Institutional Review Entity (IRE) identified by the funded institution.

Recipients also must establish an Institutional Contact for Dual Use Research (ICDUR). The award recipient must maintain records of institutional DURC reviews and completed risk mitigation plans for the term of the research grant, cooperative agreement or contract plus three years after its completion, but no less than eight years, unless a shorter period is required by law or regulation.

If a project is determined to be DURC, a risk/benefit analysis must be completed. CDC will work collaboratively with the award recipient to develop a risk mitigation plan that the CDC must approve. The USG policy can be found at http://www.phe.gov/s3/dualuse.

Non-compliance with this Policy may result in suspension, limitation, restriction or termination of USG-funding, or loss of future USG funding opportunities for the non-compliant USG-funded research project and of USG funds for other life sciences research at the institution, consistent with existing regulations and policies governing USG-funded research, and may subject the institution to other potential penalties under applicable laws and regulations.

Federal Information Security Management Act

All information systems, electronic or hard copy which contain Federal data need to be protected from unauthorized access. This also applies to information associated with NIOSH grants and contracts. Congress and the OMB have instituted laws, policies and directives that govern the creation and implementation of federal information security practices that pertain specifically to grants and contracts. The current regulations are pursuant to the Federal Information Security Management Act (FISMA), 44 U.S.C. 3541 et seq. The applicability of FISMA to NIOSH recipient applies only when recipients collect, store, process, transmit or use information on behalf of HHS or any of its component organizations. In all other cases, FISMA is not applicable to recipients of grants, including cooperative agreements. The recipient retains the original data and intellectual property, and is responsible for the security of this data, subject to all applicable laws protecting security, privacy, and research. When information collected by a recipient is provided to HHS, responsibility for the protection of the HHS copy of the information is transferred to HHS and it becomes the agency's responsibility to protect that information and any derivative copies as required by FISMA.

Data Management Plan(s)

CDC requires that all new collections of public health data include a Data Management Plan (DMP). For purposes of this announcement, “public health data” means digitally recorded factual material commonly accepted in the scientific community as a basis for public health findings, conclusions, and implementation.

This new requirement ensures that CDC is in compliance with the following: Office of Management and Budget (OMB) memorandum titled “Open Data Policy–Managing Information as an Asset” (OMB M-13-13); Executive Order 13642 titled “Making Open and Machine Readable the New Default for Government Information”; and the Office of Science and Technology Policy (OSTP) memorandum titled “Increasing Access to the Results of Federally Funded Scientific Research” (OSTP Memo).

The AR-25 outlines the components of a DMP and provides additional information for investigators regarding the requirements for data accessibility, storage, and preservation.

Certificates of Confidentiality: Institutions and investigators are responsible for

determining whether research they conduct is subject to Section 301(d) of the Public Health Service (PHS) Act. Section 301(d), as amended by Section 2012 of the 21st Century Cures Act, P.L. 114-255 (42 U.S.C. 241(d)), states that the Secretary shall issue Certificates of Confidentiality (Certificates) to persons engaged in biomedical, behavioral, clinical, or other research activities in which identifiable, sensitive information is collected. In furtherance of this provision, CDC-supported research commenced or ongoing after December 13, 2016 in which identifiable, sensitive information is collected, as defined by Section 301(d), is deemed issued a Certificate and therefore required to protect the privacy of individuals who are subjects of such research. Certificates issued in this manner will not be issued as a separate document, but are issued by application of this term and condition to this award. See Additional Requirement 36 to ensure compliance with this term and condition.

Cooperative Agreement Terms and Conditions of Award

The following special terms of award are in addition to, and not in lieu of, otherwise applicable U.S. Office of Management and Budget (OMB) administrative guidelines, U.S. Department of Health and Human Services (DHHS) grant administration regulations at 45 CFR Part 75, and other HHS, PHS, and CDC grant administration policies.

The administrative and funding instrument used for this program will be the cooperative agreement, an "assistance" mechanism (rather than an "acquisition" mechanism), in which substantial CDC programmatic involvement with the recipients is anticipated during the performance of the activities.

Under the cooperative agreement, the HHS/CDC purpose is to support and stimulate the recipient's activities by involvement in and otherwise working jointly with the award recipient in a partnership role; CDC Project Officers are not to assume direction, prime responsibility, or a dominant role in the activities. Consistent with this concept, the dominant role and prime responsibility resides with the recipient for the project, although specific tasks and activities may be shared among the recipient and HHS/CDC as defined below.

Program Directors/Principal Investigators (PDs/PIs)

The PDs/PIs (recipients) will have the primary responsibility for:

- Management, administrative, and scientific aspects of the Center, including associated data, resources, and operations;
- Coordination of all technical, scientific, and administrative aspects of activities at the awarded institution and at other sites that may be supported by subcontracts to this award;
- Retaining custody of and primary rights to the information, data, and software developed under this award, subject to U.S. Government rights of access consistent with current HHS/CDC policies;
- Obtaining and maintaining all appropriate human and animal subject approvals (IRB/IUCAC); and
- Establishing advisory committee(s) that includes expertise from construction experts in the nation to help guide the National Construction Center.

CDC/NIOSH staff will have substantial programmatic involvement that is above and beyond the normal stewardship role in awards, as described below.

NIOSH Office of Construction Safety and Health

The NIOSH Office of Construction Safety and Health (OCSH) will have substantial programmatic involvement with regard to scientific and technical expertise on research activities, strategic planning, prospective coordination, national construction sector goals and activities, and time-critical data needs or reporting. All such activities will be fully coordinated between OCSH, the NIOSH Office of Extramural Programs (OEP), and the awardee. In-person meetings, ad hoc meetings, and requests for information are anticipated, but with minimal cost implications unless specified otherwise in the Notice of Award. Site visits with the awardee will be a coordinated effort involving both OCSH and OEP personnel. As planned, substantial programmatic involvement and agency-level coordination will be provided by OCSH. The assigned NIOSH Scientific Program Official named in the notice of grant award will serve as the primary OEP point of contact.

NIOSH Scientific Program Official

The assigned HHS/CDC/NIOSH Scientific Program Official will be responsible for the normal scientific and programmatic stewardship of the award and will be named in the Notice of Award. The NIOSH Scientific Program Official will have the primary responsibility for the following:

- Grant management, programmatic, scientific, and stewardship responsibilities. These responsibilities are inherently governmental and are separate from any substantial involvement with scientific and technical matters. This helps ensure that the sponsoring agency is appropriately managing the research and related activities of the recipient institution funded under a cooperative agreement as a federal assistance funding mechanism;
- Monitor and evaluate the activities, performance, and accomplishments of the recipient through conference calls, site visits, and review of project reports;
- Receive, review, and comment on draft materials and plans consistent with the section description immediately below, such as research materials, evaluation plan, and tools;
- Carry out administrative, scientific, and technical-related duties such as grant cycle or funding information; programmatic approvals and recommendations; and consultation or technical assistance pertaining to administration requirement of award. Monitor and process Just-In-Time (JIT) information for research projects; approve final reports before release and distribution; communicate guidance and policy; facilitate budget recommendations; and disseminate recipient information such as the Annual Report and research reports; and
- Provide guidance or information for addressing recipient inquiries.

Areas of Joint Responsibility

- Organization and conduct of meeting(s) (at least annually) with NIOSH OCSH, the NORA Construction Sector Council, staff of the National Construction Center, and other interested partners to facilitate the sharing of information regarding activities and accomplishments. Meetings may be coordinated with major scientific gatherings attended by Center staff and/or utilize current technologies suitable for distance meetings, as necessary;
- Participating in NIOSH evaluation efforts related to the NIOSH Construction Program and the NIOSH

Evaluation Capacity Building Plan; and

- Maintaining clear and consistent lines of communication between and among PIs/PDs, key personnel, and NIOSH staff (NIOSH Scientific Program Official, personnel in the NIOSH OCSH, and interested scientists throughout the institute) to ensure awareness of work and to seek input and consensus on complex issues.

Business and other non-Programmatic Management. The assigned CDC Grants Management Officer and Grants Management Specialist are responsible for managing the business, financial, other non-programmatic, and fiscal aspects of a cooperative agreement funded under this announcement. This includes compliance with statutes, regulations, guidelines, and policies for federal assistance awards and certain terms and conditions in the notice of grant award.

Coordination, Communication, and Cooperation. Federal agency personnel involved with all awards made under this announcement will work together cooperatively as a team to help ensure 1) proper stewardship of the funds awarded, 2) accurate and clear communications with the awardee(s), and 3) regular evaluation of awardee progress and performance toward completing the project on time and within budget.

3. Reporting

When multiple years are involved, recipients will be required to submit the Research Performance Progress Report (RPPR) in eRA Commons at least annually and financial statements as required in the HHS Grants Policy Statement.

A final progress report, invention statement, equipment inventory list and the expenditure data portion of the Federal Financial Report are required for closeout of an award, as described in the HHS Grants Policy Statement.

Although the financial plans of the HHS/CDC CIO(s) provide support for this program, awards pursuant to this funding opportunity depend upon the availability of funds, evidence of satisfactory progress by the recipient (as documented in required reports) and the determination that continued funding is in the best interest of the Federal government.

The Federal Funding Accountability and Transparency Act of 2006 (Transparency Act) includes a requirement for recipients of Federal grants to report information about first-tier subawards and executive compensation under Federal assistance awards issued in FY2011 or later.

Compliance with this law is primarily the responsibility of the Federal agency. However, two elements of the law require information to be collected and reported by recipients:

1) Information on executive compensation when not already reported through the SAM Registration; and

2) Similar information on all sub-awards/ subcontracts/ consortiums over $25,000. It is a requirement for recipients of Federal grants to report information about first-tier subawards

and executive compensation under Federal assistance awards issued in FY2011 or later. All recipients of applicable CDC grants and cooperative agreements are required to report to the Federal Subaward Reporting System (FSRS) available at www.fsrs.gov on all subawards over $25,000. See the HHS Grants Policy Statement.

In accordance with the regulatory requirements provided at 45 CFR 75.113 and 2 CFR Part 200.113 and Appendix XII to 45 CFR Part 75 and 2 CFR Part 200, recipients that have currently active Federal grants, cooperative agreements, and procurement contracts from all Federal awarding agencies with a cumulative total value greater than $10,000,000 for any period of time during the period of performance of a Federal award, must report and maintain the currency of information reported in the System for Award Management (SAM) about civil, criminal, and administrative proceedings in connection with the award or performance of a Federal award that reached final disposition within the most recent five-year period.

The recipient must also make semiannual disclosures regarding such proceedings. Proceedings information will be made publicly available in the designated integrity and performance system (currently FAPIIS). This is a statutory requirement under section 872 of Public Law 110-417, as amended (41 U.S.C. 2313). As required by section 3010 of Public Law 111-212, all information posted in the designated integrity and performance system on or after April 15, 2011, except past performance reviews required for Federal procurement contracts, will be publicly available. Full reporting requirements and procedures are found in Appendix XII to 45 CFR Part 75 and 2 CFR Part 200 – Award Term and Condition for Recipient Integrity and Performance Matters.

Submission of Reports
The Recipient Organization must provide CDC/NIOSH the following reports:

1. Yearly Non-Competing Grant Progress Report. The RPPR is due 90 to 120 days before the end of the current budget period. The form (instructions) is to be completed on the eRA Commons website. The progress report will serve as the non-competing continuation application. Although the financial plans of the HHS/CDC CIO(s) provide support for this program, awards pursuant to this funding opportunity are contingent upon the availability of funds, evidence of satisfactory progress by the recipient (as documented in required reports) and the determination that continued funding is in the best interest of the Federal government.

2. Annual Federal Financial Report (FFR) SF 425 is required and must be submitted to the Payment Management System accessed through the FFR navigation link in eRA Commons or directly through PMS within 90 days after the budget period ends.

3. Annual report suitable for public distribution submitted to the NIOSH/OEP Scientific program official at the end of the federal fiscal year (September 30). This report should include narrative descriptions of high-impact outcomes of individual programs that are

noteworthy. Specific guidance on report content will be provided by NIOSH.

4. A final progress report, invention statement, equipment/inventory report, and the final FFR are required 90 days after the end of the project period.

Content of Reports

1. Yearly Non-Competing Grant Progress Report

The recipient's continuation application/progress report should include:

Description of Progress during Annual Budget Period: Current Budget Period Progress reported on the RPPR form in eRA Commons. Detailed narrative report for the current budget period that directly addresses progress towards the Measures of Effectiveness included in the current budget period proposal.

Research Aims: list each research aim/project

Research Aim/Project: purpose, status (met, ongoing, and unmet), challenges, successes, and lessons learned.

Leadership/Partnership: list project collaborations and describe the role of external partners.

Translation of Research (1 page maximum). When relevant to the goals of the research project, the PI should describe how the significant findings may be used to promote, enhance, or advance implementation of the research into practice or may be used to inform public safety and health policy. This section should be understandable to a variety of audiences, including policy makers, practitioners, public safety and health programs, healthcare institutions, safety institutions, professional organizations, community groups, researchers, and other potential users. The PI should identify the research findings that were translated into public safety and health policy or practice and how the findings have been or may be adopted in public safety and health settings. Or, if they cannot be applied yet, this section should address which research findings may be translated, how these findings can guide future research or related activities, and recommendations for implementation. If relevant, describe how the results of this project could be generalized to populations and communities outside of the study. Questions to consider in preparing this section include:

- *How will scientific findings be translated into public safety and health practices or inform public safety and health policy?*
- *How will the project improve or effect the implementation and dissemination of research findings into public safety and health practice or inform policy?*
- *How will the research findings help promote or accelerate the dissemination, implementation, or diffusion of improvements in public safety and health programs or practices?*
- *How will the findings advance or guide future research efforts or related activities?*

Public Health Relevance and Impact (1 page maximum). This section should address improvements in public safety and health as measured by documented or anticipated outcomes from the project. The PI should consider how the findings of the project relate beyond the immediate study to improved practices, prevention or intervention techniques, inform policy, or use of technology in public safety and health. Questions to consider in preparing this section include:

- *How will this project lead to improvements in public safety and/or health?*
- *How will the findings, results, or recommendations be used to influence practices, procedures, methodologies, etc.?*
- *How will the findings, results, or recommendations contribute to documented or projected reductions in morbidity, mortality, injury, disability, or disease?*

Current Budget Period Financial Progress: Status of obligation of current budget period funds and an estimate of unobligated funds projected provided on an estimated FFR.

New Budget Period Proposal: Detailed operational plan for continuing activities in the upcoming budget period, including updated Measures of Effectiveness for evaluating progress during the upcoming budget period. Report listed by Research Aim/Project.

Project Timeline: Include planned milestones for the upcoming year (be specific and provide deadlines).

New Budget Period Budget: Detailed line-item budget and budget justification for the new budget period. Use the CDC budget guideline format.

Publications/Presentations: Include publications/presentations resulting from this CDC grant only during this budget period. If no publication or presentations have been made at this stage in the project, simply indicate “Not applicable: No publications or presentations have been made."

IRB Approval Certification: Include all current IRB approvals to avoid a funding restriction on your award. If the research does not involve human subjects, then please state so. Please provide a copy of the most recent local IRB and CDC IRB, if applicable. If any approval is still pending at time of APR due date, indicate the status in your narrative.

Update of Data Management Plan: The DMP is considered a living document that will require updates throughout the lifecycle of the project. Investigators should include any updates to the project’s data collection such as changes to initial data collection plan, challenges with data collection, and recent data collected. Applicants should update their DMP to reflect progress or issues with planned data collection and submit as required for each reporting period.

2. Annual Federal Financial Reporting

The Annual Federal Financial Report (FFR) SF 425 is required and must be submitted through the Payment Management System (PMS) within 90 days after the end of the

budget period. The FFR should only include those funds authorized and disbursed during the timeframe covered by the report. The final FFR must indicate the exact balance of unobligated funds and may not reflect any unliquidated obligations. There must be no discrepancies between the final FFR expenditure data and the Payment Management System's (PMS) cash transaction data.

Failure to submit the required information in a timely manner may adversely affect the future funding of this project. If the information cannot be provided by the due date, you are required to submit a letter explaining the reason and date by which the Grants Officer will receive the information.

Additional resources on the Payment Management System (PMS) can be found at https://pms.psc.gov.

Recipients must submit closeout reports in a timely manner. Unless the Grants Management Officer (GMO) of the awarding Institute or Center approves an extension, recipients must submit a final FFR, final progress report, and Final Invention Statement and Certification within 90 days of the period of performance. Failure to submit timely and accurate final reports may affect future funding to the organization or awards under the direction of the same Project Director/Principal Investigator (PD/PI).

Organizations may verify their current registration status by running the “List of Commons Registered Organizations” query found at: eRA Common Registration & Accounts. Organizations not yet registered can go to Welcome to the Commons for instructions. It generally takes several days to complete this registration process. This registration is independent of Grants.gov and may be done at any time.

The individual designated as the PI on the application must also be registered in the Commons. The PI must hold a PI account and be affiliated with the applicant organization. This registration must be done by an organizational official or their delegate who is already registered in the Commons. To register PIs in the Commons, refer to the eRA Commons User Guide.

3. Annual Report

Annual report suitable for public distribution should be submitted to the NIOSH/OEP Scientific program official at the end of the federal fiscal year (September 30). This report should include narrative descriptions of high-impact outcomes of individual programs that are noteworthy. Specific guidance on report content will be provided by NIOSH.

4. Final Report

Final reports should provide sufficient detail for CDC to determine if the stated outcomes for the funded research have been achieved and if the research findings resulted in public safety and health impacts based on the investment. The final report should include:

- **Research Aim/Project Overview:** The PI should describe the purpose and approach to the project,

including the outcomes, methodology and related analyses. Include a discussion of the challenges, successes and lessons learned. Describe the collaborations/partnerships and the role of each external partner.

· **Translation of Research Findings:** The PI should describe how the findings will be translated and how they will be used to inform policy or promote, enhance or advance the impact on public safety and health practices. This section should be understandable to a variety of audiences, including policy makers, practitioners, public safety and health programs, healthcare institutions, safety institutions, professional organizations, community groups, researchers and other potential end users. The PI should also provide a discussion of any research findings that informed policy or practice during the course of the Period of Performance. If applicable, describe how the findings could be generalized and scaled to populations and communities outside of the funded project.

· **Public Health Relevance and Impact:** This section should address improvements in public safety and health as measured by documented or anticipated outcomes from the project. The PI should consider how the findings of the project related beyond the immediate study to improved practices, prevention or intervention techniques, or informed policy, technology or systems improvements in public safety and health.

· **Publications; Presentations; Media Coverage:** Include information regarding all publications, presentations or media coverage resulting from this CDC-funded activity. Please include any additional dissemination efforts that did or will result from the project.

· **Final Data Management Plan:** Applicants must include an updated final Data Management Plan that describes the data collected, the location of where the data is stored (example: a repository), accessibility restrictions (if applicable), and the plans for long-term preservation of the data.

Specific guidance for the final report and annual outcome update is available on the NIOSH OEP website under Grant Closeout.

4. Termination

CDC may impose other enforcement actions in accordance with 45 CFR 75.371-Remedies for Noncompliance, as appropriate.

The Federal award may be terminated in whole or in part as follows:

(1) By the HHS awarding agency or pass-through entity, if the non-Federal entity fails to comply with the terms and conditions of the award;

(2) By the HHS awarding agency or pass-through entity for cause;

(3) By the HHS awarding agency or pass-through entity with the consent of the non-Federal entity, in which case the two parties must agree upon the termination conditions, including the effective date and, in the case of partial termination, the portion to be terminated; or

(4) By the non-Federal entity upon sending to the HHS awarding agency or pass-through entity written notification setting forth the reasons for such termination, the effective date, and, in the case of partial termination, the portion to be terminated. However, if the HHS awarding agency or pass-through entity determines in the case of partial termination that

the reduced or modified portion of the Federal award or subaward will not accomplish the purposes for which the Federal award was made, the HHS awarding agency or pass-through entity may terminate the Federal award in its entirety.

Section VII. Agency Contacts

We encourage inquiries concerning this funding opportunity and welcome the opportunity to answer questions from potential applicants.

Application Submission Contacts

eRA Service Desk (Questions regarding ASSIST, eRA Commons, application errors and warnings, documenting system problems that threaten submission by the due date, and post-submission issues)

Finding Help Online: https://www.era.nih.gov/need-help (preferred method of contact)
Telephone: 301-402-7469 or 866-504-9552 (Toll Free)

General Grants Information (Questions regarding application instructions, application processes, and NIH grant resources)
Email: GrantsInfo@nih.gov (preferred method of contact)
Telephone: 301-637-3015

Grants.gov Customer Support (Questions regarding Grants.gov registration and Workspace)
Contact Center Telephone: 800-518-4726
Email: support@grants.gov

Scientific/Research Contact

Sharon Chiou, PhD

Scientific Program Official

Office of Extramural Programs

National Institute for Occupational Safety and Health
Centers for Disease Control and Prevention
Telephone: 304-285-6029
Email: SChiou@cdc.gov

Peer Review Contact

Michael Goldcamp, PhD

Scientific Review Officer

Office of Extramural Programs

National Institute for Occupational Safety and Health

Centers for Disease Control and Prevention

Telephone: 304-285-5951

Email: MGoldcamp@cdc.gov

Financial/Grants Management Contact
Christina Park

Grant Management Specialist

Office of Grant Services

Office of Financial Resources
Centers for Disease Control and Prevention
Telephone: 404-498-0572
Email: lsk1@cdc.gov

Section VIII. Other Information

Recently issued trans-NIH policy notices may affect your application submission. A full list of policy notices published by NIH is provided in the *NIH Guide for Grants and Contracts*. All awards are subject to the terms and conditions, cost principles, and other considerations described in the HHS Grants Policy Statement.

Authority and Regulations
Awards are made under the authorization of the Occupational Safety and Health Act of 1970, Section 20(a) and 21(a) (29 USC 669(a) and 29 USC 670); Federal Mine Safety and Health Act, Section 501(a), 30 USC 1 (Note), and 30 USC 951(a); and Section 301 of the Public Health Service Act as amended (42 USC 241) and under Federal Regulations 42 CFR Part 52. All awards are subject to 45 CFR Part 75, the terms and conditions, cost principles, and other considerations described in the

HHS Grants Policy Statement.

Weekly TOC for this Announcement
NIH Funding Opportunities and Notices

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Note: For help accessing PDF, RTF, MS Word, Excel, PowerPoint, Audio or Video files, see Help Downloading Files.